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BOSTON, MASS.

1916-17

FIRST EDITION



PUBLISHED BY HARVARD UNIVERSITY
CAMBRIDGE, MASS.

ANNOUNCEMENT
OF THE
DENTAL SCHOOL
OF
HARVARD UNIVERSITY

1916-17

FIRST EDITION



CAMBRIDGE
PUBLISHED BY THE UNIVERSITY
1916

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DENTAL SCHOOL CALENDAR

1916.

- Sept. 13, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 25, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Thursday.* Columbus Day : a holiday.
- Nov. 30, Thursday.* Thanksgiving Day : a holiday.

RECESS FROM DEC. 23, 1916, TO JAN. 2, 1917, INCLUSIVE.

1917.

- Jan. 15, Monday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1917.
- Jan. 25, Thursday.* Mid-year examinations begin.
- Jan. 29, Monday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 1, Thursday.* **Second half-year begins.**
- Feb. 22, Thursday.* Washington's Birthday : a holiday.

RECESS FROM APRIL 15 TO APRIL 21, INCLUSIVE.


- May 1, Tuesday.* Last day for receiving applications of candidates for the degree of D.M.D. in June, 1917.
- May 30, Wednesday.* Memorial Day : a holiday.
- June 18-23, Monday to Saturday.* Examinations for admission — conducted by the College Entrance Examination Board.
- June 20, Wednesday.* Alumni Day.
- June 21, Thursday.* **Commencement.**

SUMMER VACATION, FROM COMMENCEMENT DAY TO
SEPTEMBER 23, INCLUSIVE.

DEPARTMENTS OF THE UNIVERSITY

The University comprehends the following departments : —

HARVARD COLLEGE,
GRADUATE SCHOOL OF ARTS AND SCIENCES,
SCHOOL OF ARCHITECTURE,
SCHOOL OF LANDSCAPE ARCHITECTURE,
BUSSEY INSTITUTION,
ENGINEERING AND MINING,
GRADUATE SCHOOL OF BUSINESS ADMINISTRATION,
DIVINITY SCHOOL,
LAW SCHOOL,
MEDICAL SCHOOL,
DENTAL SCHOOL,
GRADUATE SCHOOL OF MEDICINE,
ARNOLD ARBORETUM,
UNIVERSITY LIBRARY,
MUSEUM OF COMPARATIVE ZOÖLOGY,
PEABODY MUSEUM OF AMERICAN ARCHAEOLOGY AND
ETHNOLOGY,
UNIVERSITY MUSEUM,
BOTANIC GARDEN,
GRAY HERBARIUM,
ASTRONOMICAL OBSERVATORY.

 Students in regular standing in any one department of the University are admitted free to the instruction and the examinations given in any other department, with the exception of exercises carried on in the special laboratories. But no student paying less than the full fee in his own department is admitted to exercises given in any other department, except upon payment of suitable fees therefor, and with the knowledge and consent of the Deans both of his department and of the department in which the additional instruction is given.

ADMINISTRATIVE OFFICERS

THE UNIVERSITY

President: ABBOTT LAWRENCE LOWELL, A.B., LL.B., LL.D., PH.D.

Office, 5 University Hall, Cambridge.

Treasurer: CHARLES FRANCIS ADAMS, A.B., LL.B.

Deputy Treasurer: GORHAM BROOKS, A.B.

The office of the Corporation (and of the Treasurer) is at 50 State Street, Boston. Office hours, 9 A.M. to 5 P.M.; Saturday, 9 A.M. to 1 P.M.

Secretaries to the Corporation: { FRANCIS WELLES HUNNEWELL, 2d, A.B., LL.B.
ROGER PIERCE, A.B.

Office, 5 University Hall, Cambridge.

Comptroller: FRANCIS WELLES HUNNEWELL, 2d, A.B., LL.B.

Office, 5 University Hall, Cambridge.

Assistant Comptroller: JOHN LEWIS TAYLOR.

Office, Dane Hall, Cambridge. Office hours, 9 A.M. to 1 P.M.

Bursar: CHARLES FRANK MASON, A.B.

Office, Dane Hall, Cambridge. Office hours, 9 A.M. to 1 P.M.

Inspector of Grounds and Buildings: WALTER SAFFORD BURKE.

Office, Massachusetts Hall. Office hours, daily, 8.45 A.M. to 12 M.,
and daily, except Saturday, 4.30 to 4.45 P.M.

Regent: EDWARD DESHON BRANDEGEE, A.B.

Office, 31 Weld Hall, Cambridge. Office hours, daily, except Saturday, 10 A.M. to 12 M.

THE FACULTY OF ARTS AND SCIENCES

The Offices of this Faculty and of the Departments under its charge at Nos. 4, 10, 19, 20, 23 and 24, University Hall, Cambridge, are open on week-days, except Saturdays, from 9 A.M. to 1 P.M., and on Saturdays from 9 A.M. to 12 M. Nos. 10, 19, 20, 23, and 24 are also ordinarily open on week-days, except Saturdays, from 2 to 4 P.M.

Dean of the Faculty of Arts and Sciences: LE BARON RUSSELL BRIGGS,
A.M., LL.D., LITT.D.

Office, 10 University Hall. Office hours, Monday, 10 A.M. to 1 P.M.

Dean of the Graduate School of Arts and Sciences: CHARLES HOMER
HASKINS, PH.D., LITT.D., LL.D.

Office, 23 University Hall. Office hours, daily, except Saturday,
12 M. to 1.15 P.M.

Dean of Harvard College: HENRY AARON YEOMANS, A.M., LL.B.

Office, 4 University Hall. Office hours, Monday, Tuesday, Friday,
10 A.M. to 12.30 P.M.

Assistant Dean of Harvard College: — — —.

Office, University Hall. Office hours, Tuesday, Wednesday, Thurs-
day, 9 A.M. to 12 M.

*Secretary of the Faculty of Arts and Sciences and Chairman of the Com-
mittee on Admission:* JOHN GODDARD HART, A.M.

Office, 20 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

Recorder of the Faculty of Arts and Sciences: GEORGE WASHINGTON
CRAM, A.B.

Office, 4 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

Dean of Special Students and Dean in Charge of University Extension:
JAMES HARDY ROPES, A.B., D.D.

Assistant Director of the Chemical Laboratory: WILLIS ARNOLD
BOUGHTON, A.B.

Director of the Summer School of Arts and Sciences: KENNETH GRANT
TREMAYNE WEBSTER, PH.D.

Office, 19 University Hall.

Secretary of the Graduate School of Arts and Sciences: GEORGE WASH-
INGTON ROBINSON, A.B.

Office, 24 University Hall. Office hours, daily, 10 A.M. to 12 M.,
and daily, except Saturday, 2 to 4 P.M.

Secretary for Student Employment: GORDON WARE, A.B.

Office, 9 University Hall. Office hours, daily, 9.30 A.M. to 12.30 P.M.,
and daily, except Saturday, 2 to 3.30 P.M.

LABORATORIES AND MUSEUMS ASSOCIATED WITH THE FACULTY OF ARTS AND SCIENCES

Director of the Chemical Laboratory: ARTHUR BECKET LAMB, PH.D.

Assistant Director of the Chemical Laboratory: WILLIS ARNOLD
BOUGHTON, A.B.

The Chemical Laboratory is in Boylston Hall.

Director of the Wolcott Gibbs Memorial Laboratory: THEODORE WILLIAM
RICHARDS, PH.D., S.D., LL.D., CHEM.D., M.D.

The Wolcott Gibbs Memorial Laboratory is on Frisbie Place.

Director of the Jefferson Physical Laboratory: THEODORE LYMAN, PH.D.

The Jefferson Physical Laboratory is on Holmes Field.

Director of the Museum of Comparative Zoölogy: SAMUEL HENSHAW, A.M.

Honorary Curator of the Botanical Museum: GEORGE LINCOLN GOOD-
ALE, M.D., LL.D.

Curator of the Mineralogical Museum: JOHN ELIOT WOLFF, PH.D.

Director of the Peabody Museum of American Archaeology and Ethnology: CHARLES CLARK WILLOUGHBY, A.M.

Secretary of the Peabody Museum of American Archaeology and Ethnology: RICHARD FRANCIS CARROLL.

The above Museums are between Oxford Street and Divinity Avenue.

Curator of the Semitic Museum: DAVID GORDON LYON, PH.D., D.D.

The Semitic Museum is on Divinity Avenue.

Curator of the Germanic Museum: KUNO FRANCKE, PH.D., LL.D., LITT. D.

The Germanic Museum is at the junction of Cambridge Street and Broadway, opposite Memorial Hall.

Director of the William Hayes Fogg Museum of Art and Curator of the Gray Collection of Engravings: EDWARD WALDO FORBES, A.B.

Assistant Director of the William Hayes Fogg Museum of Art: PAUL JOSEPH SACHS, A.B.

The Fogg Museum of Art is on Cambridge Street.

Director of the Botanic Garden: OAKES AMES, A.M.

Curator of the Gray Herbarium: BENJAMIN LINCOLN ROBINSON, PH.D.

The Herbarium and Botanic Garden are at the corner of Garden and Linnaean Streets.

OTHER FACULTIES AND DEPARTMENTS

Dean of the Graduate School of Business Administration: EDWIN FRANCIS GAY, PH.D.

Office, 17 University Hall. Office hours, Monday, Wednesday, and Friday, 11.30 A.M. to 1 P.M.

Secretary of the Graduate School of Business Administration: ELIOT GRINNELL MEARS, A.B., M.B.A.

Office, 17 University Hall. Office hours, Tuesday, Thursday, and Saturday, 10 A.M. to 12 M.

Dean of the Faculty of Divinity: WILLIAM WALLACE FENN, A.M., D.D.

Secretary of the Faculty of Divinity: HENRY WILDER FOOTE, A.M., S.T.B.
Office, Divinity Library, Cambridge. Office hours, Tuesday and Thursday, 9 to 11 A.M.; Wednesday, 2.30 to 4.30 P.M.; other times by appointment.

Dean of the Faculty of Law: ROSCOE POUND, PH.D., LL.M., LL.D.

Office, Langdell Hall, Cambridge.

Secretary of the Faculty of Law: RICHARD AMES, A.B., LL.B.

Office, Langdell Hall, Cambridge. Office hours, daily, 9 A.M. to 1 P.M.

Librarian of the Law School: EDWARD BRINLEY ADAMS, A.B., LL.D.

Dean of the Faculty of Medicine } EDWARD HICKLING BRADFORD, A.M.,
Dean of the Medical School } M.D.

Office, Harvard Medical School, Longwood Avenue, Boston. Office hours, by appointment.

Secretary of the Faculty of Medicine: FRANCIS WINSLOW PALFREY,
A.B., M.D.

Office, Harvard Medical School, Longwood Avenue, Boston. Office hours, Tuesday, 4 to 5 P.M.

Dean of the Graduate School of Medicine: HORACE DAVID ARNOLD,
A.B., M.D.

Office, Harvard Medical School. Office hours, Tuesday, 4 to 5 P.M.

Secretary of the Graduate School of Medicine: WALTER CLARKE HOWE,
A.M., M.D.

Office, Harvard Medical School. Office hours, Tuesday, 4 to 5 P.M.

Assistant Secretary of the Graduate School of Medicine: ALEXANDER
SWANSON BEGG, M.D.

Office, Harvard Medical School. Office hours, daily, 9 to 10 A.M.

Dean of the Dental School: EUGENE HANES SMITH, D.M.D.

Office, Harvard Dental School, Longwood Avenue, Boston. Office hours, 4.30 to 5.30 P.M., Monday, Tuesday, Thursday, and Friday, and by appointment.

Secretary to the Dean and Chief Clerk of the School: FLORENCE M. LANE.
Office, Harvard Dental School, Longwood Avenue, Boston. Office hours, 2 to 5.30 P.M., daily except Saturdays; Saturdays, 9 A.M. to 12 M.

Curator of the Dental Museum and Librarian: WALDO ELIAS BOARDMAN, D.M.D.

Museum and Library are in the Dental School Building, Longwood Avenue; Office of the Curator and Librarian, 419 Boylston St., Boston.

Director of the Arnold Arboretum: CHARLES SPRAGUE SARGENT, A.B., LL.D.

The Arnold Arboretum is in Jamaica Plain. The nearest railway and telegraph station is Forest Hills, on the Boston and Providence Division of the N.Y., N.H., and Hartford Railroad.

Director of the Astronomical Observatory: EDWARD CHARLES PICKERING, LL.D., S.D.

The Observatory is at the corner of Garden and Bond Streets, Cambridge.

Director of the Blue Hill Meteorological Observatory: ALEXANDER GEORGE MCADIE, A.M., S.M.

The Blue Hill Observatory is in Readville, Mass.

THE DENTAL SCHOOL

FACULTY OF MEDICINE *

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* Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

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- FREDERICK T. LORD, M.D., *Instructor in Medicine*, 305 Beacon St.
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- LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry*, Harvard Medical School.
- S. BURT WOLBACH, M.D., *Associate Professor of Pathology and Bacteriology*, Harvard Medical School.

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macology, 60 Wendell St., Cambridge.
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Biological Chemistry, Harvard Medical School.
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in Medicine, 395 Marlborough St.
- ALEXANDER S. BEGG, M.D., *Instructor in Anatomy,*
 Harvard Medical School.
- FRANCIS W. PEABODY, M.D., *Assistant Professor of*
Medicine, Peter Bent Brigham Hospital.
- ALEXANDER FORBES, M.D., *Instructor in Physi-*
ology, Milton.
- CECIL K. DRINKER, M.D., *Instructor in Physiology,*
 Harvard Medical School.
- FRANCIS W. PALFREY, M.D., *Secretary of the Fac-*
ulty of Medicine, and Instructor in Medicine, 80 Marlborough St.

STANDING COMMITTEES FOR THE DENTAL SCHOOL

Building.—Dr. Cooke (*Chairman*), Dr. E. H. Smith.

Courses of Study.—Dr. Smith (*Chairman*), Drs. Potter and Cooke.

Students' Aid.—Any student who needs assistance, pecuniary or other, may consult Dr. Franklin Dexter, Director of Scholarships. Appointments may be made by calling at the Harvard Medical School, Building D 386, Mondays, from 2 to 3.15 P.M.

THE DENTAL SCHOOL

BOSTON

GENERAL STATEMENT

The Harvard Dental School is established in Boston and was instituted by vote of the President and Fellows of Harvard College, July 17, 1867. The first session of the School opened on the first Wednesday in November, 1867, and continued until the following March. The first examination of candidates for the degree of the School was held March 6, 1869.

Instruction in this School is given throughout the academic year, by lectures, recitations, clinical teaching, and practical exercises, uniformly distributed. The programme of instruction is progressive, and occupies three years, its extension to three years having taken place in 1890. Beginning with the academic year 1917-18 the course will be extended to four years.

The studies of the first year in anatomy, histology, physiology, physiological and dental chemistry, and general pathology, together with bacteriology of the second year, are pursued in the Harvard Medical School.

The degree of Doctor of Dental Medicine is given, on recommendation by the Faculty of Medicine, on the completion of the three years' course. The degree is given in two grades.

It is the object of the Faculty to present a complete course of instruction in the theory and practice of Dentistry; and for this purpose a well-appointed laboratory and infirmary are provided. Clinical instruction is given by the professors and other instructors; and each day patients are assigned to the students, ensuring to all the opportunity of operating at the chair, and becoming trained by actual practice in all the operations demanded of the dentist.

Students have access to the hospitals of the city, and are assigned to service in the Massachusetts General Hospital.

The Administrative Board reserves the right to require the withdrawal of any student at any time whenever, in the opinion of the Board, it is manifest that he is incompetent for his work or for any reason he is unfitted to continue the course.

THE DENTAL BUILDING

In September, 1909, the Dental School moved to its new building, at the corner of Longwood Avenue and Wigglesworth Street. This building has the latest hospital equipment and is used solely for hospital purposes. It contains a commodious infirmary, three operating rooms for oral surgery with connecting wards, prosthetic laboratory, office of administration, library, museum, students' room and reception room.

It is connected by a subway with the Harvard Medical School buildings where all lectures are given.

ADMINISTRATIVE BOARD

EUGENE H. SMITH, D.M.D., DEAN, and *Professor of Clinical Dentistry and Orthodontia.*

CHARLES A. BRACKETT, D.M.D., *Professor of Dental Pathology.*

GEORGE H. MONKS, M.D., M.R.C.S., *Professor of Oral Surgery.*

WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry.*

WILLIAM P. COOKE, D.M.D., *Professor of Prosthetic Dentistry.*

AMOS I. HADLEY, D.M.D., *Instructor in Inlay Work.*

SAMUEL T. ELLIOTT, D.M.D., *Instructor in Operative Dentistry.*

GEORGE H. WRIGHT, D.M.D., *Lecturer on Oral Hygiene.*

LEROY M. S. MINER, D.M.D., M.D., *Assistant Professor of Oral Surgery.*

INSTRUCTORS, LECTURERS, AND ASSISTANTS*

ALBERT B. JEWELL, D.M.D., *Instructor in Operative Dentistry.*

FORREST G. EDDY, D.M.D., *Instructor in Operative Dentistry.*

FRANK PERRIN, D.M.D., *Instructor in Operative Dentistry.*

EDWIN C. BLAISDELL, D.M.D., *Clinical Instructor in Operative Dentistry.*

NED A. STANLEY, D.M.D., *Instructor in Operative Dentistry.*

JAMES SHEPHERD, D.M.D., *Instructor in Operative Dentistry.*

THOMAS W. WOOD, JR., D.M.D., *Instructor in Operative Dentistry.*

BENJAMIN H. CODMAN, D.M.D., *Instructor in Operative Dentistry.*

ARTHUR W. ELDRED, D.M.D., *Instructor in Prosthetic Dentistry.*

ARTHUR J. OLDHAM, D.M.D., *Instructor in Inlay Work.*

JOHN BAPST BLAKE, M.D., *Instructor in Surgery.*

FRANK T. TAYLOR, D.M.D., *Instructor in Operative Dentistry.*

AMOS I. HADLEY, D.M.D., *Instructor in Inlay Work.*

JOSEPH T. PAUL, D.M.D., *Instructor in Operative Dentistry.*

EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*

*Partial list. Complete list will appear in a later issue of the *Catalogue*.

- H. CARLTON SMITH, PH.G., *Lecturer on Dental Chemistry.*
 FRED M. RICE, A.M., *Instructor in Chemistry.*
 C. MORTON SMITH, M.D., *Instructor in Syphilis.*
 HARRY S. PARSONS, D.M.D., *Instructor in Operative Dentistry.*
 EDWARD M. QUINBY, M.R.C.S., L.R.C.P., D.M.D., *Instructor in Operative Dentistry.*
 THOMAS B. HAYDEN, D.M.D., *Instructor in Crown and Bridge Work.*
 JAMES A. FURFEY, D.M.D., *Clinical Instructor in Operative Dentistry.*
 ASHER H. ST. C. CHASE, D.M.D., *Instructor in Operative Dentistry.*
 EDWIN L. FARRINGTON, D.M.D., *Instructor in Extracting and Anaesthesia.*
 ADELBERT FERNALD, D.M.D., *Instructor in Orthodontia.*
 CHARLES E. PARKHURST, D.M.D., *Instructor in Operative Dentistry.*
 CLARENCE B. VAUGHAN, D.M.D., *Instructor in Operative Dentistry.*
 LAWRENCE W. BAKER, D.M.D., *Assistant Professor of Orthodontia.*
 CHARLES B. BURNHAM, D.M.D., *Instructor in Operative Dentistry.*
 HORACE L. HOWE, D.M.D., *Instructor in Orthodontia.*
 JOHN T. TIMLIN, D.M.D., *Instructor in Operative Dentistry.*
 OLIVER P. WOLFE, D.M.D., *Instructor in Extracting and Anaesthesia.*
 ERNEST E. CARLE, D.M.D., *Instructor in Operative Dentistry.*
 ARTHUR A. LIBBY, D.M.D., *Instructor in Operative Dentistry.*
 NORMAN B. NESBETT, D.M.D., *Instructor in Inlay Work.*
 EDWARD P. WHITE, D.M.D., *Instructor in Operative Dentistry.*
 DAVID F. SPINNEY, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES A. JAMESON, D.M.D., *Instructor in Anaesthesia.*
 ALBERT I. MACKINTOSH, D.M.D., *Instructor in Operative Dentistry.*
 LESLIE H. NAYLOR, D.M.D., *Instructor in Operative Dentistry.*
 SAMUEL T. ELLIOTT, D.M.D., *Instructor in Operative Dentistry.*
 WALTER A. DAVIS, D.M.D., *Instructor in Operative Dentistry.*
 WILSON C. DORT, D.M.D., *Instructor in Prosthetic Dentistry.*
 HUGH K. HATFIELD, M.D., D.M.D., *Instructor in Orthodontia.*
 ALBERT L. MIDGLEY, D.M.D., *Instructor in Extracting and Anaesthesia.*
 WALTER C. MINER, D.M.D., *Instructor in Orthodontia.*
 CHARLES G. PIKE, D.M.D., *Instructor in Operative Dentistry.*
 FRANK R. McCULLAGH, D.M.D., *Instructor in Prosthetic Dentistry.*
 CHARLES T. WARNER, D.M.D., *Instructor in Inlay Work.*
 MARTIN B. DILL, D.M.D., *Lecturer on Operative Dentistry.*

HENRY GILMAN, D.M.D., *Instructor in Operative Dentistry.*
 HERBERT F. LANGLEY, D.M.D., *Instructor in Prosthetic Dentistry.*
 HARRY A. STONE, D.M.D., *Instructor in Operative Dentistry.*
 WILLIAM H. WESTON, D.M.D., *Instructor in Prosthetic Dentistry.*
 GEORGE H. WRIGHT, D.M.D., *Lecturer on Oral Hygiene.*
 RAYMOND B. CARTER, D.M.D., *Instructor in Operative Dentistry.*
 HARRY S. CLARK, D.M.D., *Instructor in Prosthetic Dentistry.*
 NATHAN A. ESTES, D.M.D., *Instructor in Operative Dentistry.*
 JULIUS F. HOVESTADT, D.M.D., *Lecturer on Crown and Bridge*

Work.

LEON J. LAWTON, D.M.D., *Instructor in Operative Dentistry.*
 LEROY M. S. MINER, D.M.D., M.D., *Assistant Professor of Oral*
Surgery.

UBERT C. RUSSELL, D.M.D., *Instructor in Prosthetic Dentistry.*
 EUGENE B. WYMAN, D.M.D., *Instructor in Operative Dentistry.*
 ROBERT S. CATHERON, D.M.D., *Instructor in Operative Dentistry.*
 EARLE C. CUMMINGS, D.M.D., *Instructor in Roentgenology.*
 ALBERT HERDER, D.M.D., *Instructor in Extracting and Anaes-*
thesia.

VARAZTAD H. KAZANJIAN, D.M.D., *Demonstrator of Prosthetic*
Dentistry.

PHILIP A. LEAVITT, D.M.D., *Instructor in Operative Dentistry.*
 J. WILLIAM O'CONNELL, D.M.D., *Lecturer on Materia Medica and*
Instructor in Operative Dentistry.

WALTER F. PROVAN, D.M.D., *Instructor in Anaesthesia.*
 W. VERNON RYDER, D.M.D., *Assistant in Operative Dentistry.*
 CHARLES E. STEVENS, D.M.D., *Instructor in Operative Dentistry.*
 HORATIO L^{ES}. ANDREWS, D.M.D., *Instructor in Crown and Bridge*
Work.

FRED A. BECKFORD, D.M.D., *Instructor in Prosthetic Dentistry.*
 ARTHUR S. CROWLEY, D.M.D., *Instructor in Operative Dentistry.*
 EDWARD H. LOOMER, D.M.D., *Instructor in Operative Dentistry.*
 HAROLD B. NORWOOD, D.M.D., *Instructor in Extracting and*
Anaesthesia.

MAURICE E. PETERS, D.M.D., *Instructor in Crown and Bridge*
Work.

JUDSON C. SLACK, D.M.D., *Instructor in Operative Dentistry.*
 WILLIAM F. STRANGMAN, D.M.D., *Instructor in Prosthetic Den-*
tistry.

ERNEST V. L. WHITCHURCH, D.M.D., *Instructor in Operative*
Dentistry.

ERNEST S. CALDER, D.M.D., *Instructor in Prosthetic Dentistry.*
 GUY E. FLAGG, D.M.D., *Instructor in Prosthetic Dentistry.*

- SIMON MYERSON, D.M.D., *Instructor in Prosthetic Dentistry.*
- JOSEPH A. RING, D.M.D., *Instructor in Extracting and Anaesthesia.*
- CARL E. SAFFORD, D.M.D., *Instructor in Operative Dentistry.*
- CLARENCE SHANNON, D.M.D., *Instructor in Prosthetic Dentistry.*
- ROGER B. TAFT, D.M.D., *Instructor in Oral Surgery.*
- NELS H. MALMSTROM, D.M.D., *Instructor in Prosthetic Dentistry.*
- FREDERICK J. SULLIVAN, D.M.D., *Instructor in Prosthetic Dentistry.*
- CHARLES S. EMERSON, D.M.D., *Instructor in Operative Dentistry.*
- KURT H. THOMA, D.M.D., *Lecturer on Oral Histology and Pathology.*
- ADOLPH GAHM, D.M.D., *Instructor in Prosthetic Dentistry.*
- FREDERICK W. HOVESTADT, D.M.D., *Instructor in Crown and Bridge Work.*
- WILLIAM G. JEWETT, D.M.D., *Instructor in Operative Dentistry.*
- JOHN C. NORMAND, D.M.D., *Assistant in Prosthetic Dentistry.*
- THOMAS J. GIBLIN, JR., D.M.D., *Instructor in Prosthetic Dentistry.*
- VINCENT A. GOOKIN, D.M.D., *Assistant in Prosthetic Dentistry.*
- RALPH E. GOVE, D.M.D., *Instructor in Prosthetic Dentistry.*
- ALLAN W. LORD, D.M.D., *Assistant in Prosthetic Dentistry.*
- STERLING N. LOVELAND, D.M.D., *Assistant in Operative Dentistry.*
- STEPHEN P. MALLETT, D.M.D., *Instructor in Anaesthesia.*
- HARRY Y. NUTTER, D.M.D., *Instructor in Prosthetic Dentistry.*
- STUART R. HAYMAN, D.M.D., *Assistant in Operative Dentistry.*
- ERNEST L. LOCKWOOD, D.M.D., *Assistant in Operative Dentistry.*
- J. MARK SMITH, D.M.D., *Assistant in Extracting and Anaesthesia.*
- FREDERICK C. THOMSON, D.M.D., *Assistant in Operative Dentistry.*
- W. IRVING ASHLAND, D.M.D., *Assistant in Anaesthesia.*
- NORMAN ELLARD, D.M.D., *Assistant in Prosthetic Dentistry.*
- STUART H. VAUGHAN, D.M.D., *Assistant in Anaesthesia.*
- WALTER E. WADE, D.M.D., *Assistant in Operative Dentistry.*
- FRED R. BLUMENTHAL, D.M.D., *Assistant in Orthodontia.*
- HABÎB Y. RÎHAN, D.M.D., *Assistant in Prosthetic Dentistry.*
- G. BRICKETT BLAISDELL, D.M.D., *Assistant in Operative Dentistry.*
- CLEOPHAS P. BONIN, D.M.D., *Assistant in Operative Dentistry.*
- WALTER H. CHAMBERS, D.M.D., *Assistant in Prosthetic Dentistry.*
- RALPH C. CURTIS, D.M.D., *Assistant in Anaesthesia.*
- FRANK H. CUSHMAN, D.M.D., *Assistant in Prosthetic Dentistry.*
- FRANCIS J. TERRA, D.M.D., *Assistant in Prosthetic Dentistry.*
- WALTER N. ROBERTS, D.M.D., *Assistant in Crown and Bridge Work.*

MASSACHUSETTS GENERAL HOSPITAL .OUT-PATIENT
DENTAL CLINIC

HENRY J. SKINNER, D.M.D., *Assistant in Operative Dentistry.*
CHESTER F. WOLFE, D.M.D., *Assistant in Operative Dentistry.*
WILLIAM W. ANTHONY, D.M.D., *Assistant in Operative Dentistry.*
CHARLES W. RINGER, D.M.D., *Assistant in Operative Dentistry.*
F. CHESTER DURANT, D.M.D., *Assistant in Operative Dentistry.*
CHAUNCEY N. LEWIS, D.M.D., *Assistant in Operative Dentistry.*

ADMISSION BY CERTIFICATE

All candidates for admission holding a degree in letters, science, or medicine, from a recognized college or scientific school, or who have passed an examination for admission to Harvard College or any other reputable college of letters are admitted without examination. All candidates who have passed the examinations of a four years' course in a reputable high school* are admitted without examinations. All other candidates must pass an examination.

All candidates are required to satisfy the Administrative Board that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry sufficient to fit them to pursue the courses in Chemistry given at the School, or, failing in this, to pass an examination in General Chemistry. †

A certificate of having passed the examination for admission will admit a student to this School only so long as the entrance requirements remain the same.

The entrance and first-year examinations will be allowed to foreign students who have passed *equivalent* examinations abroad, upon presentation of proper certificates from the examining boards, vouching for the facts.

Students who have had a preliminary training equivalent to the requirements for admission to this School and who began their professional studies in other recognized dental or medical schools may be admitted to advanced standing; but all persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in dental or medical studies, and must pass examinations in the branches already pursued by the class to which they seek admittance.

Graduates of recognized dental schools and reputable practitioners of dentistry who have never received a degree will be admitted without examination to the courses in Operative and Prosthetic Dentistry, but attendance on such courses does not entitle a student to examination for the degree. A certificate of attendance will be furnished when desired.

In order that the time of study may count as a full year, students of all classes must present themselves within the first week of the academic year and register their names with the Dean.

* The course must have included the subjects which we require for entrance, or their equivalents. The grade attained in these subjects will be considered in each case.

† Special arrangements may be made for making up this condition in September previous to entering the School.

DENTAL FACULTIES ASSOCIATION OF AMERICAN UNIVERSITIES

The schools holding membership in this Association are the Thomas W. Evans Museum and Dental Institute School of Dentistry, University of Pennsylvania; University of Michigan, School of Dentistry; University of Iowa, School of Dentistry; University of Minnesota, School of Dentistry; University of California, School of Dentistry; Washington University Dental School; Harvard University Dental School.

Applicants for advanced standing who have attended any of the above schools will be given credit for examinations passed in those schools.

GENERAL REGULATIONS FOR ADMISSION

Beginning with June, 1916, all examinations for admission will be conducted by the College Entrance Examination Board.

Registration and Fees for Board Examinations.— Every candidate for examination in June, 1917, in any one or more of the subjects in which examinations are offered by the College Entrance Examination Board, is required to file a formal application with the Secretary of the College Entrance Examination Board, Hamilton Hall, 1134 Amsterdam Avenue, New York, N. Y. The blank form for this application, which will be ready for distribution in January, will be mailed to any teacher or candidate on request.

If the application is received sufficiently early the examination fee will be \$5.00 for candidates examined in the United States and Canada, and \$15.00 for candidates examined outside of the United States and Canada. The fee, which must accompany the application, should be remitted by postal order, -express order, or draft on New York to the order of the COLLEGE ENTRANCE EXAMINATION BOARD.

The applications and fees of candidates who wish to be examined outside of the United States and Canada must reach the Secretary of the Board at least five weeks in advance of the first day of the examinations, that is, on or before Monday, May 14, 1917.

The applications and fees of candidates who wish to be examined in the United States at points west of the Mississippi River, or in Canada, must be received at least three weeks in advance of the examinations, that is, on or before Monday, May 28, 1917.

The applications and fees of candidates who wish to be examined in the United States at points east of the Mississippi River or on the Mississippi River must be received at least two weeks in advance of the first day of the examination, that is, on or before Monday, June 4, 1917.

When the candidate has failed to obtain the required blank form of application for examination the usual examination fee will be accepted if

the fee arrive not later than the specified date, accompanied by a memorandum containing the name and address of the candidate, the exact examination centre selected, and a list of all the subjects in which he may have occasion to take the Board's examinations.

In order to facilitate the making of arrangements for the proper conduct of the examinations, it is desired that all applications be filed as early as possible.

It is particularly requested that in every case where a teacher files an application for a pupil the application be explained to the pupil so that the latter may understand exactly what subjects he is to offer at the examinations.

The fee must be paid by all applicants, whether they intend to present themselves for examination in one subject or in several subjects.

A candidate for examination in two or more successive years will be required to pay an examination fee each year.

Belated Applications. — Applications received later than the dates named in the preceding article will be accepted when it is possible to arrange for the admission of the candidates concerned, *but only upon the payment of five dollars in addition to the regular fee.*

Receipt for Fee. — Upon receiving the examination fee the Secretary will mail to the candidate an acknowledgment authorizing the candidate to take the Board's examinations. This receipt must be preserved by the candidate and exhibited, but not surrendered, to the local Supervisor in immediate charge of the conduct of the examinations as evidence of his right to be admitted to the same.

Should the candidate lose the receipt for his examination fee, or for any reason desire the issue of a duplicate receipt, a charge of twenty-five cents will be made for the issue of such duplicate receipt.

Return of Fees. — The fees of candidates for examination in June, 1917, whose applications have been accepted by the Secretary, can under no circumstances be returned unless the request for their return is received on or before Monday, June 11, 1917.

Division of Examinations. — A candidate for admission under the Old Plan may divide his examinations among several examination periods. If he takes any examinations one year or more before the year in which he completes his admission record, he is known as a "Preliminary Candidate," and his examinations are spoken of as "preliminary examinations."

Good English. — Particular attention is called to the fact that the habitual use of good English is required in all subjects throughout the entrance examinations. However excellent in substance, no examination will be considered entirely satisfactory unless it is free from elementary errors in spelling, usage, punctuation, grammar, sentence-structure, and

paragraphing. It is improbable that candidates will be able to satisfy this requirement unless they have been trained in school to regard their work in every subject as an opportunity for the use of correct and idiomatic English. In dealing with foreign languages, idioms strange to English should be especially avoided. When the answers are of considerable length candidates are advised to plan them before they begin to write. In every case they are urged to save the last few minutes of the examination for the revision and correction of details.

Laboratory Examinations. — A candidate who is examined in any study in which a laboratory examination is held will hand in his laboratory note-book at the hour of the laboratory examination. Laboratory note-books will be deposited, after examination, in the College office, where they will be kept for one year, subject to the order of the owners.

ADMISSION BY EXAMINATIONS

Examinations for admission to the Harvard Dental School will be held in the following subjects. Each candidate must offer studies amounting to $16\frac{1}{2}$ points. Sections 1, 2, 3, 4, 5 are required. Electives may be chosen from Section 6.

The figure attached to each study indicates the relative weight (termed points) which will be given to it in determining the question of the candidate's fitness for admission.

1. English (3)
2. Physics (1)
3. Latin (3)
 or French (2) or German (2) or Spanish (2)
 and Ancient History (1), Mediaeval and Modern History (1)
 or English History (1)
4. Theoretical and Descriptive (Inorganic) Chemistry (1)
5. Algebra ($1\frac{1}{2}$)

In addition he will be obliged to offer a sufficient number of subjects chosen from the list below to make up the total of $16\frac{1}{2}$ units required.

- | | |
|---|--|
| 6. Advanced Latin (1) | Biology (1), |
| Advanced French (1) | <i>or Botany ($\frac{1}{2}$), or Zoölogy ($\frac{1}{2}$)</i> |
| Advanced German (1) | Geography ($\frac{1}{2}$) |
| Advanced Algebra ($\frac{1}{2}$) | American History ($\frac{1}{2}$) |
| Plane Geometry (1) | Civil Government ($\frac{1}{2}$) |
| Solid Geometry ($\frac{1}{2}$) | Frechand Drawing ($\frac{1}{2}$) |
| Logarithms and Trigonometry ($\frac{1}{2}$) | Mechanical Drawing ($\frac{1}{2}$) |

The examination in Theoretical and Descriptive (Inorganic) Chemistry will be given at the Harvard Dental School.

STUDIES IN WHICH EXAMINATIONS ARE HELD

1. ENGLISH

The study of English in school has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation.

GRAMMAR AND COMPOSITION

The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs, should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter-writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

LITERATURE

The second object is sought by means of two lists of books, headed respectively *Reading* and *Study*, from which may be framed a progressive course in literature covering four years. In connection with both lists, the student should be trained in reading aloud and be encouraged to commit to memory some of the more notable passages both in verse and in prose. As an aid to literary appreciation, he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

(a) *Reading*

The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature, by giving him a first-hand knowledge of some of its best specimens. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and charm of what he reads.

With a view to large freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections are to be made, except as otherwise provided under Group I:—

Group I. Classics in Translation. — The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Aeneid. The Odyssey, Iliad, and Aeneid should be read in English translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted.

Group II. Shakspeare. — *Midsummer Night's Dream*; *Merchant of Venice*; *As You Like It*; *Twelfth Night*; *The Tempest*; *Romeo and Juliet*; *King John*; *Richard II*; *Richard III*; *Henry V*; *Coriolanus*; *Julius Caesar**; *Macbeth**; *Hamlet*.*

Group III. Prose Fiction. — Malory's *Morte d'Arthur* (about 100 pages); Bunyan's *Pilgrim's Progress*, Part I; Swift's *Gulliver's Travels* (voyages to Lilliput and to Brobdingnag); DeFoe's *Robinson Crusoe*, Part I; Goldsmith's *Vicar of Wakefield*; Frances Burney's *Evelina*; Scott's Novels (any one); Jane Austen's Novels (any one); Maria Edgeworth's *Castle Rackrent*, or *The Absentee*; Dickens's Novels (any one); Thackeray's Novels (any one); George Eliot's Novels (any one); Mrs. Gaskell's *Cranford*; Kingsley's *Westward Ho!* or *Hereward, the Wake*; Reade's *The Cloister and the Hearth*; Blackmore's *Lorna Doone*; Hughes's *Tom Brown's Schooldays*; Stevenson's *Treasure Island*, or *Kidnapped*, or *Master of Ballantrae*; Cooper's Novels (any one); Poe's *Selected Tales*; Hawthorne's *The House of the Seven Gables*, or *Twice-Told Tales*, or *Mosses from an Old Manse*; a collection of *Short Stories* by various standard writers.

Group IV. Essays, Biography, etc. — Addison and Steele's *The Sir Roger de Coverley Papers*, or *Selections from the Tatler and Spectator* (about 200 pages); Boswell's *Selections from the Life of Johnson* (about 200 pages); Franklin's *Autobiography*; Irving's *Sketch Book* (about 200 pages), or *Life of Goldsmith*; Southey's *Life of Nelson*; Lamb's *Essays of Elia* (about 100 pages); Lockhart's *Life of Scott* (about 200 pages); Thackeray's *Lectures on Swift, Addison, and Steele in the English Humourists*; Macaulay's *Lord Clive*, *Warren Hastings*, *Milton*, *Addison*, *Goldsmith*, *Frederic the Great*, *Madame d'Arblay* (any one); Trevelyan's *Life of Macaulay* (about 200 pages); Ruskin's *Sesame and Lilies*, or *Selections* (about 150 pages); Dana's *Two Years before the Mast*; *Selections from Lincoln*, including at least the two *Inaugurals*, the *Speeches in Independence Hall* and at *Gettysburg*, the *Last Public Address*,

* If not chosen for study under (b).

and the Letter to Horace Greeley, together with a brief memoir or estimate; Parkman's *The Oregon Trail*; Thoreau's *Walden*; Lowell's *Selected Essays* (about 150 pages); Holmes's *The Autocrat of the Breakfast Table*; Stevenson's *An Inland Voyage*, and *Travels with a Donkey*; Huxley's *Autobiography*, and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; a collection of *Essays* by Bacon, Lamb, DeQuincey, Hazlitt, Emerson, and later writers; a collection of *Letters* by various standard writers.

Group V. Poetry.—Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Palgrave's *Golden Treasury* (First Series), Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study under *b*); Goldsmith's *The Traveller*, and *The Deserted Village*; Pope's *The Rape of the Lock*; a collection of English and Scottish Ballads, as, for example, some Robin Hood ballads, *The Battle of Otterburn*, King Estmere, Young Beichan, Bewick and Grahame, Sir Patrick Spens, and a selection from later ballads; Coleridge's *The Ancient Mariner*, *Christabel*, and *Kubla Khan*; Byron's *Childe Harold*, Canto III or IV, and *The Prisoner of Chillon*; Scott's *The Lady of the Lake*, or *Marmion*; Macaulay's *The Lays of Ancient Rome*, *The Battle of Naseby*, *The Armada*, *Ivry*; Tennyson's *The Princess*, or *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*, *The Italian in England*, *The Patriot*, *The Pied Piper*, "*De Gustibus*"—, *Instans Tyrannus*; Arnold's *Sohrab and Rustum*, and *The Forsaken Merman*; Selections from *American Poetry*, with special attention to Poe, Lowell, Longfellow, and Whittier.

(b) Study

This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. The books provided for study are arranged in four groups, from each of which one selection is to be made.

Group I. Drama.—Shakspeare's *Julius Caesar*, *Macbeth*, *Hamlet*.

Group II. Poetry.—Milton's *L'Allegro*, *Il Penseroso*, and either *Comus* or *Lycidas*; Tennyson's *The Coming of Arthur*, *The Holy Grail*, and *The Passing of Arthur*; the selections from Wordsworth, Keats, and Shelley in Book IV of Palgrave's *Golden Treasury* (First Series).

Group III. Oratory. — Burke's Speech on Conciliation with America; Macaulay's Two Speeches on Copyright, and Lincoln's Speech at Cooper Union; Washington's Farewell Address, and Webster's First Bunker Hill Oration.

Group IV. Essays. — Carlyle's Essay on Burns, with a selection from Burns's Poems; Macaulay's Life of Johnson; Emerson's Essay on Manners.

EXAMINATION

However accurate in subject-matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

The examination will be divided into two parts, one of which will be on grammar and composition, and the other on literature.

In grammar and composition, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English, which one should know in distinction from current errors. The main test in composition will consist of one or more essays, developing a theme through several paragraphs; the subjects will be drawn from the books read, from the candidate's other studies, and from his personal knowledge and experience quite apart from reading. For this purpose the examiner will provide several subjects, perhaps eight or ten, from which the candidate may make his own selections. He will not be expected to write more than four hundred words per hour.

The examination in literature will include : —

A. General questions designed to test such a knowledge and appreciation of literature as may be gained by fulfilling the requirements defined under (*a*) *Reading*, above. The candidate will be required to submit a list of the books read in preparation for the examination, certified by the principal of the school in which he was prepared; but this list will not be made the basis of detailed questions.

B. A test on the books prescribed for study, which will consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works, and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

LATIN

I. AMOUNT AND RANGE OF THE READING REQUIRED

1. The Latin reading, without regard to the prescription of particular authors and works, shall be not less *in amount* than Caesar, Gallic War, I-IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Vergil, Aeneid, I-VI.

2. The amount of reading specified above shall be selected by the schools from the following authors and works: Caesar (Gallic War and Civil War) and Nepos (Lives); Cicero (orations, letters, and De Senectute) and Sallust (Catiline and Jugurthine War); Vergil (Bucolics, Georgics, and Aeneid) and Ovid (Metamorphoses, Fasti, and Tristia).

II. SCOPE OF THE EXAMINATIONS

1. *Translation at Sight.* Candidates will be examined in translation at sight of both prose and verse. The vocabulary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above.

2. *Prescribed Reading.* Candidates will be examined also upon the following prescribed reading: Cicero, orations for the Manilian Law and for Archias, and Vergil, Aeneid, I, II, and either IV or VI, at the option of the candidate, with questions on subject-matter, literary and historical allusions, and prosody. Every paper in which passages from the prescribed reading are set for translation will contain also one or more passages for translation at sight; and candidates must deal satisfactorily with both these parts of the paper, or they will not be given credit for either part.

3. *Grammar and Composition.* The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose.

ELEMENTARY LATIN

The requirements in Elementary Latin may be met by the following examinations of the Board:—

Grammar.—The examination will presuppose the reading of the required amount of prose (see I, 1 and 2), including the prose works prescribed (see II, 2).

Elementary Prose Composition.—The examination will presuppose the reading of the required amount of prose (see I, 1 and 2), including the prose works prescribed (see II, 2).

Cicero (orations for the Manilian Law and for Archias) and Sight Translation of Prose.—The examination will presuppose the reading of the required amount of prose (see I, 1 and 2)

or

Vergil (Aeneid, I, II, and either IV or VI, at the option of the candidate) and Sight Translation of Poetry.—The examination will presuppose the reading of the required amount of poetry (see I, 1 and 2)

FRENCH

The requirements in French follow the recommendations of the Committee of Twelve of the Modern Language Association of America.*

ELEMENTARY FRENCH

The Aim of the Instruction

At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of every-day life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

The Work to be done

During the first year the work should comprise :

1. Careful drill in pronunciation.
2. The rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax.
3. Abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression.
4. The reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English) and in reproducing from memory sentences previously read.
5. Writing French from dictation.

* The Report of the Committee of Twelve, which was submitted in December, 1898, may be obtained in separate book form from D. C. Heath & Co. The lists of texts at present given in the requirements of the College Entrance Examination Board were recommended by a committee of the Modern Language Association in December, 1910.

Suitable texts for the first year: A well-graded reader for beginners; Bruno, *Le tour de la France*; Compayré, *Ivan Gall*; Laboulaye, *Contes bleus*; Malot, *Sans famille*.

During the second year the work should comprise :

1. The reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches.

GERMAN

The requirements in German follow the recommendations of the Committee of Twelve of the Modern Language Association of America.*

ELEMENTARY GERMAN

The Aim of the Instruction

At the end of the elementary course in German the pupil should be able to read at sight, and to translate, if called upon, by way of proving ability to read, a passage of very easy dialogue or narrative prose, help being given upon unusual words and construction, to put into German short English sentences taken from the language of every-day life or based upon the text given for translation, and to answer questions upon the rudiments of the grammar, as defined below.

The Work to be done

During the first year the work should comprise :

1. Careful drill upon pronunciation.
2. The memorizing and frequent repetition of easy colloquial sentences.
3. Drill upon the rudiments of grammar; that is, upon the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs and the more usual strong verbs; also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word-order.
4. Abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression.
5. The reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

* The Report of the Committee of Twelve, which was submitted in December, 1898, may be obtained in separate book form from D. C. Heath & Co. The lists of texts at present given in the requirements of the College Entrance Examination Board were recommended by a committee of the Modern Language Association in December, 1910.

SPANISH

The requirement in Spanish, which follows the form and spirit of the recommendations made for French and German by the Committee of Twelve of the Modern Language Association, is based upon recommendations made by a committee of that Association in December, 1910.

The Aim of the Instruction

At the end of the elementary course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of every-day life or based upon a portion of the Spanish text read, and to answer questions on the rudiments of the grammar, as indicated below.

The Work to be Done

During the first year the work should comprise :

1. Careful drill in pronunciation.
2. The rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives, and pronouns, and the elementary rules of syntax.
3. Exercises containing illustrations of the principles of grammar.
4. The careful reading and accurate rendering into good English of about 100 pages of easy prose and verse, with translation into Spanish of easy variations of the sentences read.
5. Writing Spanish from dictation.

During the second year the work should comprise :

1. The reading of about 200 pages of prose and verse.
2. Practice in translating Spanish into English, and English variations of the text into Spanish.
3. Continued study of the elements of grammar and syntax.
4. Mastery of all but the rare irregular verb forms and of the simpler uses of the modes and tenses.
5. Writing Spanish from dictation.
6. Memorizing of easy short poems.

The emphasis should be placed on careful thorough work with much repetition rather than upon rapid reading. The reading should be selected from the following: A collection of easy short stories and lyrics, carefully graded; Juan Valera, *El pájaro verde*; Perez Escrich, *Fortuna*; Ramos Carrión and Vital Aza, *Zaragueta*; Palacio Valdés, *José*; Pedro de Alarcón, *El Capitán Veneno*; the selected short stories of Pedro de Alarcón or Antonio de Trucba.

Every secondary school in which Spanish is taught should have in its library several Spanish-English and English-Spanish dictionaries, the all-Spanish dictionary of the Royal Spanish Academy; one or more manuals of the history of Spanish literature, such as that by Fitzmaurice-Kelly, and Ticknor's *History of Spanish Literature*.

HISTORY

ELEMENTARY HISTORY

The requirements in History are based on the recommendations of the Committee of Seven of the American Historical Association.

A. Ancient History, with special reference to Greek and Roman History, and including also a short introductory study of the more ancient nations and the chief events of the early Middle Ages, down to the death of Charlemagne.

B. Mediaeval and Modern European History, from the death of Charlemagne to the present time (1).

C. English History (1).

D. American History and Civil Government (1).

The examinations in history will be framed so as to require the use of both judgment and memory on the pupil's part. They will presuppose the use of good text-books, collateral reading, and practice in written work. Geographical knowledge will be tested by requiring the location of places and movements on an outline map.

The Report of the Committee of Seven, which appeared in the Proceedings of the American Historical Association for 1898, was published separately under the title, "Study of History in Schools," by The Macmillan Company in 1899. It was incorporated in the Report made to the National Education Association in 1899 by the Committee on College Entrance Requirements.

The attention of teachers is called also to the report of the Committee of Five of the American Historical Society, "The Study of History in Secondary Schools" (New York, The Macmillan Company, 1911). The examiners of the Board will endeavor to frame the examination papers *on the four fields of work defined above* in accordance with the recommendations of this committee.

MATHEMATICS

A thorough practical acquaintance with ordinary Arithmetic is assumed as underlying all preparation in Mathematics. Knowledge of the fundamental principles of Arithmetic and careful training in accurate computation with whole numbers and with vulgar and decimal fractions form an

essential part of early school work. But the pupil's time should not be wasted in the solution by arithmetic of puzzling problems which properly belong to algebra, or in complicated and useless reductions, or in the details of commercial arithmetic. It is desirable that some familiarity with algebraic expressions and symbols, including the methods of solving simple equations, be acquired in connection with the course in Arithmetic.

ELEMENTARY MATHEMATICS

Elementary Algebra. — Algebra, through Quadratic Equations.

The requirement in Algebra includes the following subjects: factors, common divisors and multiples, fractions, ratios and proportions; negative quantities and the interpretation of negative results; the doctrine of exponents; radicals and equations involving radicals; the binomial theorem for positive integral powers of the binomial, and the extraction of roots; arithmetical and geometrical progressions; putting questions into equations and the reduction of equations; the ordinary methods of elimination and the solution of both numerical and literal equations of the first and second degrees with one or more unknown quantities and of problems leading to such equations.

The student should cover carefully the whole ground here specified, and should acquire a thorough understanding not only of the practice, but of the reasons involved in the elementary algebraic rules; for example, in the rules of multiplication, of signs, and of exponents, in the rules for fractions, and in those relating to the reduction and solution of equations. He should train himself to practical skill by the solution of a large number of examples, and should learn to do his work with reasonable quickness, as well as with confidence, accuracy, and clearness. The solution of fairly complicated literal quadratics, the various methods of elimination for equations of the first two degrees, the putting of problems in a neat manner into equations, and the working of the various algebraic operations both for integral and fractional expressions may be mentioned as important subjects of attention. The student should be taught to arrange his work in a clear, orderly, and compact fashion.

The time supposed to be devoted to the systematic study of the requirement in Algebra is the equivalent of a course of three lessons a week through two school years.

PLANE GEOMETRY

The usual theorems and constructions of good text-books,* including the general properties of plane rectilinear figures; the circle and the measure-

* The Board's examination questions in plane and solid geometry will be limited to propositions contained in the syllabus prepared by the National Committee of Fifteen appointed by the American Federation of Teachers of the Mathematical and Natural Sciences and the National Education Association. The Report of the Committee was published in *The Mathematics Teacher* for December, 1912. Reprints of the Report may be obtained *gratis* upon application to the Commissioner of Education, Department of the Interior, Washington, D. C.

ment of angles; similar polygons; areas; regular polygons and the measurement of the circle.

The solution of numerous original exercises, including loci problems.
Applications to the mensuration of lines and plane surfaces.

SOLID GEOMETRY

The usual theorems and constructions of good text-books,* including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle.

The solution of numerous original exercises, including loci problems.
Applications to the mensuration of surfaces and solids.

PHYSICS

A course of study dealing with the leading elementary facts and principles of Physics.

The instruction given in this course should accord with the following specifications:—

1. The unit in Physics [full requirement] consists of at least 120 hours of 60 minutes each. [If this study is taken earlier than the last year of the school course, more time should be allowed for it.] Time spent in the laboratory shall be counted at one-half face value.

2. The course of instruction in Physics should include:—

(a) The study of one standard text-book for the purpose of obtaining a connected and comprehensive view of the subject. The student should be given opportunity and encouragement to consult other scientific literature.

(b) Instruction by lecture table demonstrations to be used mainly for illustration of the facts and phenomena of Physics in their qualitative aspects and in their practical applications.

(c) Individual laboratory work, consisting of experiments requiring at least the time of 30 double periods [60 full hours in all]. The experiments performed by each student should number at least 30. Those named in the appended list are suggested as suitable. [This reference is to the Board List, which is not here reproduced.] The work should be so distributed as to give a wide range of observation and practice.

The aim of the laboratory work should be to supplement the pupil's fund of concrete knowledge and to cultivate his power of accurate observation and clearness of thought and expression. The exercises should be chosen with a view to furnishing forceful illustrations of fundamental principles and their practical applications. They should be such as yield results capable of ready interpretation, obviously in conformity with theory [not so inaccurate or uncertain as to obscure the principles they are intended to illustrate], and free from the disguise of unintelligible units.

Slovenly work should not be tolerated, but the effort for precision should not lead to the use of apparatus or processes so complicated as to obscure the principle involved.

* See foot-note, p. 34.

3. Throughout the whole course special attention should be paid to the common illustrations of physical laws and to their industrial applications.
4. In the solution of numerical problems the student should be encouraged to make use of the simple principles of algebra and geometry to reduce the difficulties of solution. Unnecessary mathematical difficulties should be avoided and care should be exercised to prevent the student's losing sight of the concrete facts, in the manipulation of symbols.

The Examination—The candidate is required to pass both a written examination and a laboratory examination.

The laboratory examination, in the course of which oral questioning may be freely used, will require performance by the candidate of a number of experiments assigned to him at the time by the examiner, the range of assignment being limited by the following provision: The candidate must name as the basis for his laboratory examination at least thirty exercises selected from a list of about fifty, described in a publication issued by Harvard University under the title *Descriptive List of Elementary Exercises in Physics*.*

This laboratory examination may occupy the candidate from one and a half to two and a half hours, no time limit, as a rule, being set for it.

The candidate is required to present a note-book in which he has recorded the steps and the results of his laboratory exercises, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain a table of contents of the exercises which it describes. These exercises need not be the same as those upon which the candidate presents himself for the laboratory examination, but should be equivalent to them in amount and grade of quantitative work.

The note-book is required as proof that the candidate has formed the habit of keeping a full and intelligible record of laboratory work through an extended course of experiments, and that his work has been of such a character as to raise a presumption in favor of his preparation for the examination. But much greater weight will be given to the laboratory examination than to the note-book in determining the candidate's attainments in physics. Experience has shown that pupils can make the original record of their observations entirely presentable, so that copying will be unnecessary, and they should in general be required to do so.

CHEMISTRY

A course of systematic instruction in the principles of Chemistry and their application.

The candidate is required to pass both a written and a laboratory examination. The preparation required for the written examination may be found in the *Revised Requirements in Chemistry* issued by the College Entrance Examination Board. The preparation required for the laboratory examination is the performance by the student of not less than forty experiments of good length and quality similar in character and scope to those given in the requirements mentioned above. The candidate is

* This list may be obtained, price 40 cents, at 2 University Hall, Cambridge.

In place of the Harvard Descriptive List, the revised list of the College Entrance Examination Board, as adopted in 1909, may be used; but, as the Board List gives titles only, the Harvard examiners must decide in any given case whether the exercises offered are satisfactory.

further required to present the original note-book in which he recorded the steps and results of the experiments which he performed at school, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain an index of the exercises which it describes. Experiments not offered for examination must be plainly designated. This note-book is required as proof that the candidate has formed the habit of keeping a full and intelligible record of laboratory work made during the actual progress of his experiments. The original record of all data and observations should be presented. Greater weight will be given to the laboratory examination than to the note-book in determining the candidate's attainments in Chemistry.

GEOGRAPHY

Geography.—A course of study equivalent to that described in the outline of requirements in Geography published by the College Entrance Examination Board.

BOTANY AND ZOÖLOGY

Botany.—A course of study and laboratory work equivalent to that indicated in an outline of requirements in Botany, issued by the College Entrance Examination Board. The course should extend through at least half of a school year, with five lessons a week.

Zoölogy.—A course of study and laboratory work equivalent to that described in a pamphlet entitled an outline of requirements in Zoölogy, issued by the College Entrance Examination Board. The course should extend through at least half of a school year, with five lessons a week.

In Botany and in Zoölogy the candidate will be required to pass both a written and a laboratory examination. The written examination will test the range and thoroughness of his knowledge of the subject. The laboratory examination will test his skill in observation and experimentation, and his ability to apply names properly to the parts of the organisms studied.*

At the time of the laboratory examination the candidate must present the original note-book containing (with dates) the notes and drawings he has made in the course of his laboratory work, and bearing the endorsement of his teacher, certifying that the book is a true record of the pupil's own observations and experiments. An index of subjects should be appended.

DRAWING

A course of drawing, in either or both of the following branches, equivalent to that described in the outline of requirements in Drawing, issued by the College Entrance Examination Board.

* For rules relating to laboratory examinations and note-books, see p. 24.

Freehand Drawing.—The representation of simple objects, in outline and with shading.

The candidate's preparation in drawing should be directed toward training him in accurate observation and in definite and truthful representation of form, without attempt to represent color or color values.

The candidate should be able to draw correctly and with lines of good quality simple form in correct perspective in the size in which it is felt in the plane of the drawing, or larger or smaller. It is recommended that pupils should be taught to draw from the object itself rather than from the flat.

Correctness of proportion and accuracy in the angles and curves and structural relations of the parts of every object drawn are of the highest importance.

The elementary principles of perspective are to be thoroughly learned, and the candidate should be able to apply them in freehand drawing from the object or from the imagination.

No definite prescription as to method of teaching is made. The examination will test the preparation of the candidate in the following points:—

1. Ability to sketch from the object with reasonable correctness as to proportion, structure and form. It is recommended that the subjects drawn include simple geometrical objects and simple natural objects, such as living plant forms.
2. Ability to sketch freehand from dictation with reasonable accuracy any simple geometrical figure or combination of figures.
3. Ability to represent accurately in perspective a simple geometrical solid of which projection drawings are given, and ability to make consistent projection drawings of a simple geometrical solid of which a perspective representation is given.
4. Ability to answer questions in regard to the principles involved in making these drawings.

Mechanical Drawing.—A course in drawing equivalent to that described in the definition of requirements in Mechanical Drawing published by the College Entrance Examination Board.

CIVIL GOVERNMENT

Civil Government.—Civil Government in the United States (national, state, and local); its constitution, organization, and actual working.

The candidate will be expected to show, on examination, such general knowledge of the field as may be acquired from the study of a good text-book of not less than three hundred pages, supplemented by collateral reading, and discussion. The examination will call for familiarity with constitutional questions and with the procedure of legislative bodies.

For preparation in this subject, a course of study equivalent to at least three lessons a week for one year will be necessary.

REGISTRATION

The academic year 1916–17 begins on Monday, September 25, 1916. All students register at the Dental School, Longwood Avenue, on that day, at 9 A.M.

ARRANGEMENT OF STUDIES

The following is the plan of study in the successive years of the School:—

First Year.—Mammalian Anatomy, Physiology, Physiological, Pathological, and Dental Chemistry, and Metallurgy; Histology and Embryology, Anatomy-dissection, General Pathology.

Second Year.—Oral Pathology, Operative Dentistry, Oral Surgery, Prosthetic Dentistry and Orthodontia; Porcelain Work; General and Dental Materia Medica and Therapeutics; Bacteriology; Clinical Chemistry, Crown and Bridge Work; practical work daily in the prosthetic laboratory and in the operative infirmary.

Third Year.—Operative Dentistry, Oral Surgery, Prosthetic Dentistry, Orthodontia, Porcelain Work, Neurology, Surgical Pathology and Surgery, Crown and Bridge Work; Applied Therapeutics; Dental Jurisprudence; Roëntgenology; practical work in prosthetic laboratory and operative infirmary.

METHODS OF INSTRUCTION

DENTAL AND PHYSIOLOGICAL CHEMISTRY

H. CARLTON SMITH, Ph.G., *Lecturer on Dental Chemistry.*

FRED M. RICE, A.M., *Instructor in Chemistry.*

This course aims to make practical application of the various branches of chemical science to meet the requirements of the student of Dental Medicine.

Particular attention is given to the study of saliva and urine and, as far as possible, to the determination of relations which may exist between these fluids and pathological conditions of interest in dental practice.

During the first year this work includes laboratory methods, analysis, etc., and forms a part of the course in Physiological Chemistry.

In the second year the entire time is devoted to the study of urine and saliva. The samples for analysis are obtained from infirmary patients and whenever practicable from the same patient for whom the student is doing actual dental work.

The analyses of urine are studied particularly from a standpoint of body metabolism, and considered with the analyses of saliva and conditions found in the mouth. A comprehensive basis is thus furnished for the study of cause and effect and general information is obtained essential to the undertaking of subsequent investigation of an original character. Research work is encouraged and opportunities for special investiga-

tion will be offered such students as can give the necessary time in the laboratory.

The Dental Chemistry includes instruction in blow-pipe work, the principles of volumetric analysis, and the assay of dental alloys; also microchemical tests, with special reference to the examination of local anaesthetics and antiseptics; the chemistry of the teeth, salivary calculus and saliva.

The Physiological Chemistry includes a short introductory course in Organic Chemistry sufficient for an intelligent consideration of the composition of the carbohydrates and protein, their relationship, chemical properties, and methods of precipitation and separation; also the chemistry of digestion, of the different tissues, fat, muscle, etc., of bile, lymph, milk, and urine.

Text-books.—Chemistry for Dental Students, Smith. Dental Metallurgy, Essig. Practical Physiological Chemistry, Hawk. Examination of the Urine, Saxe.

Collateral Reading.—Medical Chemistry and Toxicology, Holland. Physiological Chemistry, Hammarsten or Novy. Halliburton, Text-book of Chemical Physiology and Pathology. Simon, Physiological Chemistry. Bunge, Physiologic and Pathologic Chemistry. Gamgee, Physiological Chemistry of the Animal Body. Lea, Chemical Basis of the Animal Body (appendix to Foster's Text-book of Physiology). Vaughan and Novy, Cellular Toxins. Diseases of Metabolism and Nutrition, by Dr. Carl von Noorden. The Principles of Animal Nutrition, Armsby. Mitchell's Dental Chemistry. Dorland's American Illustrated Medical Dictionary. Hepburn's Notes on Dental Metallurgy.

FIRST YEAR

Lectures. Mr. SMITH. *Five times a week throughout the first half of first year and once a week for eight weeks during the second year.* 85
 Demonstrations or Laboratory Experiments. Mr. SMITH and Mr. RICE.
Three hours a day, five times a week throughout the first half of first year and once a week for eight weeks during the second year. 237

ANATOMY

JOHN L. BREMER, M.D., *Associate Professor of Histology.*
 JOHN WARREN, M.D., *Associate Professor of Anatomy.*
 FREDERIC T. LEWIS, M.D., *Associate Professor of Embryology.*
 ROBERT M. GREEN, M.D., *Instructor in Anatomy.*
 ALEXANDER S. BEGG, M.D., *Instructor in Anatomy.*
 EDWARD H. RISLEY, M.D., *Assistant in Anatomy.*

ARCHIBALD MCK. FRASER, M.D., *Assistant in Anatomy.*

RICHARD H. MILLER, M.D., *Assistant in Anatomy.*

JOSEPH M. THÜRINGER, M.D., *Assistant in Histology and Embryology.*

PAUL E. LINEBACK, M.D., *Assistant in Histology and Embryology.*

KURT H. THOMA, D.M.D., *Lecturer on Oral Histology and Pathology.*

EDWARD A. BOYDEN, Ph.D., *Instructor in Comparative Anatomy.*

WILLIAM R. MORRISON, M.D., *Assistant in Anatomy.*

ALBERT A. SHAPIRA, M.D., *Assistant in Anatomy.*

FREDERICK S. HOPKINS, A.B., *Laboratory Assistant in Comparative Anatomy.*

WILLARD C. RAPPEYE, *Laboratory Assistant in Comparative Anatomy.*

The department of anatomy occupies the Morgan Anatomical Building; the dissecting rooms are in the wing designated B I; and the laboratories for histology, embryology, and comparative anatomy, in the wing B II. In addition to the numerous class-rooms, which are well lighted and thoroughly equipped, there are ample accommodations for advanced students, and unusual facilities are at the disposal of qualified investigators. Further information in regard to advanced or special studies may be had upon application to Professor Warren or Professor Lewis. The regular course for dental students is described below.

Gross Human Anatomy. Beginning on Monday, January 29, and continuing to the April recess, the class will have systematic daily lectures or demonstrations on gross anatomy at two o'clock, followed by dissection in the laboratory until 5.30. The dissection is supervised by the assistants in the course who will hold frequent oral quizzes. On Saturday mornings there will be additional special lectures and demonstrations, and on several occasions written tests. The study of the bones and joints will be conducted simultaneously with the dissection by means of specimens which will be issued in boxes to each student. In this manner the study of the anatomy of the entire body will be completed at the beginning of the April recess. Special emphasis is laid on the study and dissection of the head and neck, proportionally more time being devoted to this portion of the course than in the case of medical students. Special attention is given to the cavities of the head and face, and each student is expected to study and draw carefully specimens and frozen sections of the head in addition to his own dissection.

The afternoons of the four weeks following the April recess will be devoted to the course in oral anatomy and histology, described below. The remaining afternoons of May will be devoted to a complete review of the entire course.

Text-books. — Piersol's "Human Anatomy" is recommended, for which either Cunningham's or Gray's Anatomy may be substituted; and for collateral reading, — Dixon's "Manual of Human Osteology," Ivy's "Applied Anatomy for Dental Students," and Treves's "Applied Anatomy."

Fees. — Each regular dental student is charged a laboratory fee of nine dollars, of which six dollars is for dissecting room material, and three dollars for chemicals and microscopical sections used in other first-year courses. This laboratory fee is to be paid to the Bursar. At the beginning of the course each student is provided with a locker in the dissecting room and another in the histological laboratory. One dollar is deposited for each locker, to be repaid on returning the locker keys. At the end of the course any student who has broken or lost material belonging to the laboratory will be charged the cost of replacing the same.

January 29th, February, March, and April HOURS

Lectures or demonstrations. Dr. ROBERT M. GREEN. *Five times a week.* 54

Dissection. Drs. GREEN, RISLEY, FRASER, MILLER, MORRISON, and SHAPIRA. *Two and one-half hours a day, five times a week (afternoons).* 135

Lectures and written tests. *Three hours, Saturdays.* 18

Microscopic Anatomy. This course begins on Monday, January 29, and occupies the week day mornings except Saturdays, until the April recess. The history of the discovery and interpretation of cells, and the cytological factors in reproduction and heredity, are considered in the introductory part of the course. This is followed by a study of the association and differentiation of cells to form the several fundamental tissues; and the course concludes with an examination of the microscopic structure of the principal organs. Frequent reference will be made to the embryological development of the adult structures. The "Text-book of Histology, arranged upon an embryological basis," by Lewis and Stöhr, 2d edition, will be used, and the following books for collateral reading are recommended: Wilson, The Cell in Development and Inheritance; Foster, Lectures on the History of Physiology and Loey, Biology and its Makers; Bryce's Embryology, and Schäfer's Microscopic Anatomy, which are two volumes of the 11th edition of "Quain's Anatomy."

Microscopes. Every student is advised to purchase a microscope, but microscopes may be rented at four dollars for the term. There is also a laboratory fee, as described under "Gross Human Anatomy."

January 29th, February, March, and April (to the recess) HOURS

Lectures. Associate Professor LEWIS	<i>Five times a week.</i>	54
Laboratory. Associate Professor LEWIS, Drs. BEGG, THÜRINGER, and LINEBACK, and Dr. BOYDEN.	<i>Three hours a day, five times a week.</i>	162

In these courses instruction is given in comparative and human anatomy, both gross and microscopic. The courses occupy the mornings of September, October, February, March, and April, and the afternoons of February, March, April, and May.

Comparative Anatomy. This brief introductory course, in the mornings of September and October, is a preparation for later work in physiology and human anatomy. The lectures present a synoptic survey of the animal kingdom, with particular attention to the vertebrates; they include also expositions of the laboratory work, either just completed or about to be begun. In the laboratory, certain systems of organs of the dog-fish, frog, and cat, together with the brain of the sheep, are dissected carefully, but complete dissections cannot be undertaken in the time available. Thus each student will give some attention to the muscular and osseous systems, and will observe, in his own dissections, the principal features of the digestive, urogenital, circulatory and nervous systems of vertebrates. No text-book has been adopted, but laboratory outlines are provided. As collateral reading, any of the numerous elementary text-books of zoölogy and comparative anatomy are recommended.

September and October

HOURS

Lectures. Dr. BOYDEN.	<i>Five times a week, five weeks.</i>	24
Laboratory work. Dr. BOYDEN, and MESSRS. HOPKINS, RAPPLEYE, and —.	<i>Three hours a day, five times a week.</i>	72

ANATOMY AND PATHOLOGY OF THE ORAL CAVITY

After the April recess the afternoons of April and May are devoted to oral anatomy and histological pathology. This course consists of daily lectures and laboratory work. The first two weeks the students study the topography of the structures of the oral cavity, by drawing horizontal and frontal sections of the head, later the gross anatomy of the teeth is carefully studied, special attention being given to the pulp chamber and root canals and the occlusion of the teeth. Each student has to draw the various aspects of the different teeth, and sections through the root canals. Extracted teeth are provided, the root canals of which are to be cleaned out, to familiarize the student with the important and difficult work of root canal treatment. The third and fourth week is devoted to the histology

and histological pathology of the soft and hard tissues and organs of the mouth, while in the fifth week the embryology of the mouth and the development of the teeth receive careful attention. The histological and embryological work is taught by microscopic study, drawings from slides, demonstrations on wax models and lantern slides. Slides of healthy and pathological specimens are provided of each tissue of the mouth and studied in turn to make the student acquainted not only with the minute make-up of the normal parts of the mouth, but also with the structural changes brought about by disease. The knowledge gained by studying the histology of the healthy and diseased tissue side by side is not only important in diagnosis but extremely valuable to understand and develop medical as well as surgical therapeutic measures. At the end of the course comparative anatomy of the teeth, the theories of evolution to the present type of teeth, and phylogeny of the face also receive careful attention.

Text-books. — Noyes, Dental Histology and Embryology.

Collateral Reading. — Broonell-Fischelis, Anatomy and Histology of the Mouth and Teeth, Edit. 4; Hopewell-Smith, Dental Anatomy and Physiology.

Lectures and demonstrations.	Dr. THOMA.	<i>Five times a week.</i>	25
Laboratory exercises.	Drs. THOMA, PARKER, and HAYMAN.	<i>Five times a week (afternoons).</i>	75
Written tests.			

PATHOLOGY

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

The course consists of lectures and laboratory exercises occupying the mornings of the month of May. The general principles of pathology, including inflammation and repair, retrograde processes, certain special infectious agents and tumors, will be presented first. The special pathology of the teeth and adjoining structures will be considered and the nature of the lesions involving these organs will be explained in the light of the general principles already studied.

Laboratory exercises.	Associate Professor MALLORY.	<i>Three hours daily, for four weeks.</i>	72
Lectures.	Associate Professor MALLORY.	<i>Daily, for four weeks.</i>	24

PHYSIOLOGY

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

PERCY G. STILES, Ph.D., *Assistant Professor of Physiology.*

ALEXANDER FORBES, M.D., *Instructor in Physiology.*

CECIL K. DRINKER, M.D., *Instructor in Physiology.*

— — —, *Teaching Fellow in Physiology.*

NEUTON S. STERN, *Teaching Fellow in Physiology.*

REGINALD FITZ, M.D., *Fellow in Physiology.*

HAROLD F. PIERCE, A.B., *Austin Teaching Fellow in Physiology.*

The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and sixty hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised from day to day.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is divided into sections and quizzed orally every week by the instructing staff. At the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization. The examination books are returned, corrected, to the students.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Text-books.—No special text-book is required, but the following books are recommended for reading in connection with the course: Text-book of Physiology, edited by E. A. Schäfer. Howell, Text-book of Physiology. Stewart, Manual of Physiology. Tigerstedt, Text-book of Physiology. Hermann, Lehrbuch der Physiologie. Nagel, Handbuch der Physiologie.

<i>November, December, January</i>	HOURS
Laboratory experiments. Professor CANNON and Dr. DRINKER. <i>Daily.</i>	160
Quizzes (14). <i>One hour Saturdays.</i>	14
Written tests (5). <i>One hour Mondays.</i>	5
Lectures (90). Professor CANNON and Dr. DRINKER.	90
Special demonstrations (30). Professor CANNON and Dr. DRINKER.	15

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

COMPARATIVE PHYSIOLOGY

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

GRADUATE COURSES

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of the Professor in charge.

II. *Comparative Physiology of Muscle.* Professor PORTER. Three hours weekly during February and March.

III. *Physiological Conference.* Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. Mondays and Thursdays, 5 to 6 P.M., throughout the year.

BACTERIOLOGY

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

S. BURT WOLBACH, M.D., *Associate Professor of Pathology and Bacteriology.*

CALVIN G. PAGE, M.D., *Instructor in Bacteriology.*

ALBERT E. STEELE, M.D., *Instructor in Bacteriology.*

CLEAVELAND FLOYD, M.D., *Instructor in Bacteriology.*

HENRY J. PERRY, M.D., *Assistant in Bacteriology.*

HORACE K. BOUTWELL, M.D., *Assistant in Bacteriology.*

LESLEY H. SPOONER, M.D., *Assistant in Bacteriology.*

JAMES A. HONEIJ, M.D., *Fellow in Bacteriology.*

JOHN W. HAMMOND, Jr., M.D., *Assistant in Bacteriology.*

RICHARD S. AUSTIN, M.D., *Austin Teaching Fellow in Bacteriology.* *

Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Lectures. Professor ERNST. *Daily, except Saturdays, during October and November.* 40

Laboratory work. Professor ERNST, and Drs. STEELE, PAGE, PERRY, BOUTWELL, SPOONER, AUSTIN, and FLOYD. *Two to three hours daily during October and November.* 120

OPERATIVE DENTISTRY

EUGENE H. SMITH, D.M.D., *Professor of Clinical Dentistry and Orthodontia.*

WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry.*

ALBERT B. JEWELL, D.M.D., *Instructor in Operative Dentistry.*

FORREST G. EDDY, D.M.D., *Instructor in Operative Dentistry.*

FRANK PERRIN, D.M.D., *Instructor in Operative Dentistry.*

EDWIN C. BLAISDELL, D.M.D., *Clinical Instructor in Operative Dentistry.*

JAMES SHEPHERD, D.M.D., *Instructor in Operative Dentistry.*

THOMAS W. WOOD, Jr., D.M.D., *Instructor in Operative Dentistry.*

BENJAMIN H. CODMAN, D.M.D., *Instructor in Operative Dentistry.*

FRANK T. TAYLOR, D.M.D., *Instructor in Operative Dentistry.*

JOSEPH T. PAUL, D.M.D., *Instructor in Operative Dentistry.*

- HARRY S. PARSONS, M.D., D.M.D., *Instructor in Operative Dentistry.*
 EDWARD M. QUINBY, M.R.C.S., L.R.C.P., D.M.D., *Instructor in Operative Dentistry.*
 JAMES A. FURFEY, D.M.D., *Clinical Instructor in Operative Dentistry.*
 ASHER H. ST.C. CHASE, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES E. PARKHURST, D.M.D., *Instructor in Operative Dentistry.*
 CLARENCE B. VAUGHAN, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES B. BURNHAM, D.M.D., *Instructor in Operative Dentistry.*
 JOHN T. TIMLIN, D.M.D., *Instructor in Operative Dentistry.*
 ERNEST E. CARLE, D.M.D., *Instructor in Operative Dentistry.*
 ARTHUR A. LIBBY, D.M.D., *Instructor in Operative Dentistry.*
 EDWARD P. WHITE, D.M.D., *Instructor in Operative Dentistry.*
 DAVID F. SPINNEY, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES A. JAMESON, D.M.D., *Instructor in Anaesthesia.*
 • ALBERT I. MACKINTOSH, D.M.D., *Instructor in Operative Dentistry.*
 LESLIE H. NAYLOR, D.M.D., *Instructor in Operative Dentistry.*
 SAMUEL T. ELLIOTT, D.M.D., *Instructor in Operative Dentistry.*
 WALTER A. DAVIS, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES G. PIKE, D.M.D., *Instructor in Operative Dentistry.*
 MARTIN B. DILL, D.M.D., *Lecturer on Operative Dentistry.*
 HARRY A. STONE, D.M.D., *Instructor in Operative Dentistry.*
 RAYMOND B. CARTER, D.M.D., *Instructor in Operative Dentistry.*
 NATHAN A. ESTES, D.M.D., *Instructor in Operative Dentistry.*
 LEON J. LAWTON, D.M.D., *Instructor in Operative Dentistry.*
 EUGENE B. WYMAN, D.M.D., *Instructor in Operative Dentistry.*
 ROBERT S. CATHERON, D.M.D., *Instructor in Operative Dentistry.*
 PHILIP A. LEAVITT, D.M.D., *Instructor in Operative Dentistry.*
 J. WILLIAM O'CONNELL, D.M.D., *Lecturer on Materia Medica and Instructor in Operative Dentistry.*
 WALTER F. PROVAN, D.M.D., *Instructor in Anaesthesia.*
 W. VERNON RYDER, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES E. STEVENS, D.M.D., *Instructor in Operative Dentistry.*
 ARTHUR S. CROWLEY, D.M.D., *Instructor in Operative Dentistry.*
 EDWARD H. LOOMER, D.M.D., *Instructor in Operative Dentistry.*
 JUDSON C. SLACK, D.M.D., *Instructor in Operative Dentistry.*
 ERNEST V. L. WHITCHURCH, D.M.D., *Instructor in Operative Dentistry.*
 CARL E. SAFFORD, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES S. EMERSON, D.M.D., *Instructor in Operative Dentistry.*
 WILLIAM G. JEWETT, D.M.D., *Instructor in Operative Dentistry.*
 CHESTER F. WOLFE, D.M.D., *Assistant in Operative Dentistry.*
 WILLIAM W. ANTHONY, D.M.D., *Assistant in Operative Dentistry.*
 CHARLES W. RINGER, D.M.D., *Assistant in Operative Dentistry.*

STUART R. HAYMAN, D.M.D., *Assistant in Operative Dentistry.*
 ERNEST L. LOCKWOOD, D.M.D., *Assistant in Operative Dentistry.*
 FREDERICK C. THOMSON, D.M.D., *Assistant in Operative Dentistry.*
 W. IRVING ASHLAND, D.M.D., *Assistant in Anaesthesia.*
 F. CHESTER DURANT, D.M.D., *Assistant in Operative Dentistry.*
 CHAUNCEY N. LEWIS, D.M.D., *Assistant in Operative Dentistry.*
 WALTER E. WADE, D.M.D., *Assistant in Operative Dentistry.*
 G. BRICKETT BLAISDELL, D.M.D., *Assistant in Operative Dentistry.*
 CLEOPHAS P. BONIN, D.M.D., *Assistant in Operative Dentistry.*

The instruction in this department is systematically distributed over the second and third years. In the second year there is one lecture each week. These lectures deal first with the elemental principles of operative dentistry and then with the application of these principles to the simpler forms of operative work. Practical work is carried on six mornings in the week during the year. The student is first required to arrange extracted teeth in a metal model which imitates the shape of the jaws. Upon teeth thus mounted a variety of operations is performed. Thus familiarity with instruments, and ability in their use is developed. When a student has acquired operative ability by work upon the model, he is given patients. Upon these patients he performs at first the simpler operations, then the more difficult ones. In the course of the year all the ordinary operations are performed.

In the third year there is one lecture each week. These lectures deal with advanced processes in operative dentistry. They are arranged so as to be a natural continuation of the lectures of the second year. Practical work is carried on five afternoons in the week, and students are required to satisfactorily perform all the accredited operations belonging to the practice of dentistry.

Clinical Lectures on Operative Dentistry.—These exercises are intended to demonstrate the individual methods of the lecturers. They include brief lectures, the exhibition of models, and practical operations upon patients.

Text-books.—Black, *Operative Dentistry.* American Text-Book of Operative Dentistry. American System of Dentistry. Marshall, *Oral Surgery.* Marshall, *Operative Dentistry.* Johnson, *Text-Book of Operative Dentistry.* Hewitt, *Anaesthetics and Their Administration.* Thoma, *Oral Anaesthesia.*

LECTURES. Professor POTTER. *Once a week throughout the third year.* 30
 Dr. DILL. *Once a week throughout the second year.* 30

Practical work. Drs. JEWELL, EDDY, PERRIN, BLAISDELL, SHEPHERD, WOOD, CODMAN, TAYLOR, PAUL, PARSONS, QUINBY, FURFEY, CHASE, PARKHURST, VAUGHAN, BURNHAM, TIMLIN, CARLE, LIBBY, JAMESON, SPINNEY, WHITE, MACKINTOSH, NAYLOR, ELLIOTT, DAVIS, PIKE, STONE, CARTER, ESTES, LAWTON, WYMAN, CATHERON, LEAVITT, O'CONNELL, PROVAN, RYDER, STEVENS, CROWLEY, LOOMER, SLACK, WHITCHURCH, SAFFORD, EMERSON, JEWETT, HAYMAN, LOCKWOOD, THOMSON, ASHLAND, WADE, BLAISDELL, BONIN. *Fifteen hours a week, throughout the second and third years.* 960

Massachusetts General Hospital, Out-Patient Department. — Operative Clinic. Drs. SKINNER, WOLFE, ANTHONY, RINGER, BLUMENTHAL, DURANT, LEWIS. *Three hours each day throughout the year.*

PROPHYLAXIS AND PYORRHOEA ALVEOLARIS

NED A. STANLEY, D.M.D., *Instructor in Operative Dentistry.*

Pyorrhoea Alveolaris receives special attention. The etiology of the disease and its systemic treatment are considered in the lectures, and an operative course in instrumentation is given to the class in sections. Clinics. *Three hours each week throughout the year.* 96

X-RAY DEPARTMENT. — DWIGHT M. CLAPP FOUNDATION

EARLE C. CUMMINGS, D.M.D., *Instructor in Roentgenology.*

A course of eight or more lectures on Roentgenology supplemented by clinical demonstrations.

It is aimed to touch briefly upon the subject in general, while giving special attention to the use of the X-ray in Dentistry. The interpretation of Dental radiographs is taken up in detail, and the value of the X-ray as a diagnostic agent is dwelt upon and illustrated with practical cases.

Collateral Reading. — Journal of American Roentgen-Society. Kassabau's Electro-Therapeutic and Roentgen Rays. Raper's Dental Radiography.

Lectures. Dr. CUMMINGS. *Once a week for eight weeks.*

EXTRACTION AND ANAESTHESIA

WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry.*

EDWIN L. FARRINGTON, D.M.D., *Instructor in Extracting and Anaesthesia.*

OLIVER P. WOLFE, D.M.D., *Instructor in Extracting and Anaesthesia.*

ALBERT L. MIDGLEY, D.M.D., *Instructor in Extracting and Anaesthesia.*

HAROLD B. NORWOOD, D.M.D., *Instructor in Extracting and Anaesthesia.*

ALBERT HERDER, D.M.D., *Instructor in Extracting and Anaesthesia.*

JOSEPH A. RING, D.M.D., *Instructor in Extracting and Anaesthesia.*

J. MARK SMITH, D.M.D., *Assistant in Extracting and Anaesthesia.*

The subject of extraction is treated in the lectures upon operative dentistry by Professor POTTER. This treatment deals first with the anatomy of the roots and the root sockets and then the lines of least resistance along which teeth should be removed from their sockets. The technique of tooth extraction is explained and illustrated upon models.

Anaesthesia as induced by nitrous oxide, nitrous oxide and oxygen, ether and somnoforme is described in lectures which deal with symptoms produced and technique of administration.

Local anaesthesia by the injection of cocaine and novocaine according to the most approved methods is taught.

Practical instruction in extracting and anaesthesia is available to second and third-year students every day in the year with the exception of Sundays and holidays. Special attention is given to continuous anaesthesia by the use of nitrous oxide and oxygen, and students have ample opportunity to become familiar with operations under this system.

Extracting Clinics. Professor POTTER, Drs. WOLFE, FARRINGTON, MIDGLEY, NORWOOD, HERDER, RING, and J. MARK SMITH. *Two hours a day, throughout the second and third years.* 600

Clinical Demonstrations of Nitrous Oxide and Oxygen Anaesthesia. Professor POTTER. *Once a week throughout the third year.* 64

PROSTHETIC DENTISTRY

WILLIAM P. COOKE, D.M.D., *Professor of Prosthetic Dentistry.*

ARTHUR W. ELDRED, D.M.D., *Instructor in Prosthetic Dentistry.*

WILSON C. DORT, D.M.D., *Instructor in Prosthetic Dentistry.*

FRANK R. McCULLAGH, D.M.D., *Instructor in Prosthetic Dentistry.*

HERBERT F. LANGLEY, D.M.D., *Instructor in Prosthetic Dentistry.*

WILLIAM H. WESTON, D.M.D., *Instructor in Prosthetic Dentistry.*

HARRY S. CLARK, D.M.D., *Instructor in Prosthetic Dentistry.*

UBERT C. RUSSELL, D.M.D., *Instructor in Prosthetic Dentistry.*

VARAZTAD H. KAZANJIAN, D.M.D., *Demonstrator of Prosthetic Dentistry.*

FRED A. BECKFORD, D.M.D., *Instructor in Prosthetic Dentistry.*

WILLIAM F. STRANGMAN, D.M.D., *Instructor in Prosthetic Dentistry.*

ERNEST S. CALDER, D.M.D., *Instructor in Prosthetic Dentistry.*

SIMON MYERSON, D.M.D., *Instructor in Prosthetic Dentistry.*

CLARENCE SHANNON, D.M.D., *Instructor in Prosthetic Dentistry.*
 NELS H. MALMSTROM, D.M.D., *Instructor in Prosthetic Dentistry.*
 FREDERICK J. SULLIVAN, D.M.D., *Instructor in Prosthetic Dentistry.*
 ADOLPH GAHM, D.M.D., *Instructor in Prosthetic Dentistry.*
 JOHN C. NORMAND, D.M.D., *Assistant in Prosthetic Dentistry.*
 THOMAS J. GIBLIN, Jr., D.M.D., *Instructor in Prosthetic Dentistry.*
 RALPH E. GOVE, D.M.D., *Instructor in Prosthetic Dentistry.*
 ALLAN W. LORD, D.M.D., *Assistant in Prosthetic Dentistry.*
 HARRY Y. NUTTER, D.M.D., *Instructor in Prosthetic Dentistry.*
 NORMAN ELLARD, D.M.D., *Assistant in Prosthetic Dentistry.*
 WALTER H. CHAMBERS, D.M.D., *Assistant in Prosthetic Dentistry.*
 FRANK H. CUSHMAN, D.M.D., *Assistant in Prosthetic Dentistry.*
 HABIB Y. RIHAN, D.M.D., *Assistant in Prosthetic Dentistry.*
 FRANCIS J. TERRA, D.M.D., *Assistant in Prosthetic Dentistry.*

Lectures and demonstrations to the second and third class in sections, followed by practical work in the laboratory: the manner in which mineral teeth are constructed, the principles and method of carving and furnace-work, and all compounds used for artificial teeth; and the manner in which gold and silver plates are prepared and adapted to the mouth; the use of rubber and other articles as bases. It is the aim to teach not only the mere mechanical processes of Dentistry, but that combination of art with mechanism which enables the practitioner to effect so much in restoring the symmetry of the face and usefulness of the teeth, where they have been lost or impaired by accident or disease.

Lectures. Dr. WRIGHT and Dr. RUSSELL. *During the third year.* 32

Lectures. Dr. BECKFORD. *Once a week throughout the second year.*

Practical work. Drs. ELDRED, DORT, McCULLAGH, LANGLEY, WESTON, CLARK, RUSSELL, BECKFORD, CALDER, MYERSON, SHANNON, MALMSTROM, SULLIVAN, GAHM, NORMAND, GIBLIN, Jr., GOVE, LORD, NUTTER, ELLARD, RIHAN, CHAMBERS, CUSHMAN, TERRA. *Eighteen hours a week throughout the second and third years.* 1080

CROWN AND BRIDGE WORK

WILLIAM P. COOKE, D.M.D., *Professor of Prosthetic Dentistry.*
 JULIUS F. HOVESTADT, D.M.D., *Lecturer on Crown and Bridge Work.*
 THOMAS B. HAYDEN, D.M.D., *Instructor in Crown and Bridge Work.*
 HORATIO LE S. ANDREWS, D.M.D., *Instructor in Crown and Bridge Work.*
 MAURICE E. PETERS, D.M.D., *Instructor in Crown and Bridge Work.*
 GUY E. FLAGG, D.M.D., *Instructor in Crown and Bridge Work.*
 WALTER N. ROBERTS, D.M.D., *Assistant in Crown and Bridge Work.*

Leeetures and Demonstrations. Professor COOKE. *Once a week throughout the second and third years.* 30

Practieal Work. Drs. HOVESTADT, HAYDEN, ANDREWS, PETERS, F. W. HOVESTADT, and FLAGG. *Three hours each week.* 90

Text-books. — Wilson, Dental Prosthesis. Richardson, Mechanical Dentistry. Turner's Prosthetic Dentistry. Kingsley, Oral Deformities. Hovestadt, Principles of Teehniue in Crowns and Bridges. Harris, Prineiples and Practice. Harris, Dictionary of Dentistry. Evans, Crown and Bridge Work. Goslee, Principles and Practiee of Crowning Teeth.

ORTHODONTIA

EUGENE H. SMITH, D.M.D., *Professor of Clinical Dentistry and Orthodontia.*

LAWRENCE W. BAKER, D.M.D., *Assistant Professor of Orthodontia.*

ADELBERT FERNALD, D.M.D., *Instructor in Orthodontia.*

HORACE L. HOWE, D.M.D., *Instructor in Orthodontia.*

WALTER C. MINER, D.M.D., *Instructor in Orthodontia.*

HUGH K. HATFIELD, D.M.D., *Instructor in Orthodontia.*

FRED R. BLUMENTHAL, D.M.D., *Assistant in Orthodontia.*

Orthodontia is taught by leeetures and by praetieal work in the Infirmary. During the seecnd half of the seecnd year there are leeetures and demonstrations and the students are made familiar with the prinieiples of normal occlusion and the various apparatus for the eorreecion of irregularities. In the third year the diagnosis and treatment of the various forms of malocclusions and the etiology are taught by leeetures and recitations. Each senior student is obliged to take not less than two cases of irregularities and carry them to eompletion under the direction of the professor in charge and his associates. On Tuesday and Friday afternoons conferences are held on the eases under treatment.

Text-books. — Angle, Treatment of Malocclusion of the Teeth and Fractures of the Maxillae. Farrar, Irregularities of the Teeth. Talbot, Irregularities. Guilford, Orthodontia. Case, Dental Orthopedia.

Leeetures. Professor SMITH. *Once a week throughout the third year.* 30

Leeetures. Asst. Professor BAKER. *Once a week for six weeks during the second half of second year.* 6

Clinies. Drs. BAKER, HOWE, FERNALD, MINER, and HATFIELD. *Seven hours a week throughout October and Novemocr. Four hours a week throughout balance of year.* 147

INLAY WORK

AMOS I. HADLEY, D.M.D., *Instructor in Inlay Work.*

ARTHUR J. OLDHAM, D.M.D., *Instructor in Inlay Work.*

NORMAN B. NESBETT, D.M.D., *Instructor in Inlay Work.*

CHARLES T. WARNER, D.M.D., *Instructor in Inlay Work.*

Demonstrations in gold and porcelain inlay work in the prosthetic laboratory and infirmary.

Text-books.—Byram, Principles and Practice of Filling Teeth with Porcelain. Bruck, The Filling of Teeth with Porcelain. Peck, Porcelain Inlays.

Clinics. Drs. HADLEY, OLDHAM, and NESBETT. *Three hours a week throughout the third year.* 174

Clinics. Drs. HADLEY and WARNER. *Three hours a week for eighteen weeks during the second year.* 174

SYPHILIS

C. MORTON SMITH, M.D., *Instructor in Syphilis.*

The course consists of lectures and clinical instruction given in the Dermatological Clinic of the Boston Dispensary where there is a very large proportion of syphilitics. Each student is given ample opportunity to see all of the common and many of the rarer manifestations of syphilis in the mouth and throat, as well as non-syphilitic conditions that may be misleading.

Other manifestations of the disease are shown when of practical value or interest to the students.

Lectures and Clinical Instruction. *Throughout the first half of the third year.*

SURGERY, SURGICAL PATHOLOGY, AND ORAL SURGERY

GEORGE H. MONKS, M.D., M.R.C.S., *Professor of Oral Surgery.*

LEROY M. S. MINER, D.M.D., M.D., *Assistant Professor of Oral Surgery.*

JOHN BAPST BLAKE, M.D., *Instructor in Surgery.*

ROGER B. TAFT, D.M.D., *Instructor in Oral Surgery.*

Lectures embracing the general subjects of inflammation, suppuration, ulceration, gangrene, necrosis, erysipelas, septicemia, pyemia, shock, repair, etc.; and special subjects which more particularly concern Oral Surgery. These lectures will be illustrated, so far as possible, by diagrams, by demonstrations of pathological specimens, and by exhibition of clinical cases at the Boston City Hospital and by weekly clinics in the

Surgical Department at the Dental School. Instruction will be given in the use of anaesthetics.

Text-books. — Da Costa's Modern Surgery. Brewer's Surgery. Warren, Surgical Pathology.

Lectures. Professor MONKS. *Once a week for twenty-four weeks.* 24

Clinics. Professor MONKS, Asst. Professor MINER, and Dr. TAFT. *Once a week, throughout the year.* 96

Clinics. Asst. Professor MINER and Dr. TAFT. *Once a week, throughout the year.* 64

Clinics. Dr. BLAKE. *Once a week, for two months, at the Boston City Hospital.* 8 or 9

OPERATIVE SURGERY

Operations are performed before students one day each week throughout the year in the Amphitheatres at the Massachusetts General Hospital and the Boston City Hospital.

ORAL HYGIENE

GEORGE H. WRIGHT, D.M.D., *Lecturer on Oral Hygiene.*

Clinical Instruction during the third year. *Massachusetts General Hospital.*

DENTAL PATHOLOGY

CHARLES A. BRACKETT, D.M.D., *Professor of Dental Pathology.*

In the beginning of the course of lectures the general principles of Pathology, including Etiology, Nosology, Semeiology, Diagnosis, and Prognosis, are outlined. The various pathological conditions in their relations to one another and their modifications of structure and function are taught. This prepares the way for the special pathology of the region with which the dentist has most to do. The diseases of the dental and contiguous tissues are considered in detail, with reference to their nature, causes, manifestations and terminations, and their relations with systemic conditions. The lectures will be supplemented with clinical demonstrations of pathological conditions.

Text-books. — Burchard, Inglis, Dental Pathology and Therapeutics. Miller, Micro-organisms of the Human Mouth.

Collateral Reading. — Barrett, Oral Pathology and Practice. McFarland, Text-book of Pathology. Warren, Surgical Pathology and Therapeutics.

Lectures. Professor BRACKETT. *Once a week, throughout the second year.* 30

MATERIA MEDICA AND PHARMACOLOGY

J. WILLIAM O'CONNELL, D.M.D., *Lecturer on Materia Medica and Instructor in Operative Dentistry.*

The course includes the study of drugs used in medicine; their sources, physical and chemical properties, constituents, preparations and doses.

Pharmacology, the science dealing with the action of drugs upon the tissues, organs, and functions of the body, is given special attention. At frequent intervals demonstrations on animals will be given, showing the pharmacologic action of the more important drugs.

Sufficient Therapeutics is taught to give students an intelligent idea of the use of drugs, and their application in pathological conditions.

Toxicology, the study of poisons, their antidotes and antagonists, also the treatment in cases of poisoning, receive careful attention.

Prescription writing and the incompatibility of drugs are duly considered.

Quizzes are held frequently throughout the year.

Text-books. — Potter, *Materia Medica, Pharmacy, and Therapeutics*. Wood, *Therapeutics, Materia Medica, and Toxicology*. Butler, *Materia Medica, Pharmacology, and Therapeutics*. Prinz, *Materia Medica and Therapeutics*. Buckley, *Materia Medica and Therapeutics*.

Collateral Reading. — Hare, *Practical Therapeutics*. Thompson, *Dietetics*.

Lectures and Conferences. Dr. O'CONNELL. *Once a week throughout the second year.*

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NEUROLOGY

EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*

A course of four lectures on Neurology will include a brief review of the anatomy and physiology of the nervous system, the anatomy of the trifacial nerve being made the subject of special study.

The nervous disturbances liable to be set up by dental irritation, and, conversely, those likely to produce odontalgia, will be considered as fully as the limited nature of the course permits, special attention being paid to trifacial neuralgia. The relation of certain functional disorders to the work of the dentist will also be considered.

Lectures. Dr. TAYLOR. *Once a week for four weeks.*

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CLINICAL ADVANTAGES

The Dental School is established in Boston in order to secure those advantages for Clinical Instruction which are found only in large cities.

The clinics of the Dental Hospital afford a sufficient number of patients to give each student abundant practice in all branches of Dentistry.

Each student is assigned a chair in the Operative Infirmary and is required to operate three hours a day, five days each week, giving him during each year 480 hours of practice.

Each student is assigned a bench in the Prosthetic Laboratory and is required to work at the bench or in the Prosthetic Infirmary three hours a day for six days each week, giving him 576 hours of practice each year.

The Massachusetts General Hospital. — During the past year, six thousand two hundred and fifty-one patients were treated in the wards, five thousand four hundred and twenty-four cases were treated in the accident ward, and there were one hundred forty-seven thousand four hundred and twenty-eight visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, or demonstrated in the amphitheatres. Operations are numerous, and are performed in the amphitheatre. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, Children's Diseases, Orthopedies, Diseases of the Genito-Urinary System, and Syphilis.

The Boston City Hospital. — During the past year, eighteen thousand and seventy-seven cases were treated in its wards, and there were two hundred and eight thousand one hundred and ninety-seven visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, forty-nine thousand street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In this hospital, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching over four thousand nine hundred a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Dispensary. — About one hundred and ten thousand visits were made by out-patients at this charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Massachusetts Charitable Eye and Ear Infirmary. — Over sixty-one thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

LIBRARIES AND MUSEUMS

The College Library at Cambridge is open to students, and also the Library of the Boston Medical Library Association, which has a dental section containing a large and very complete collection of dental literature. It includes the libraries of the American Academy of Dental Science and the Massachusetts Dental Society. There is a good reference library of modern books, including encyclopaedias, systems, etc. The Library is open daily, except Sundays and holidays, from 9 A.M. to 6 P.M. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August.

The Dental School Library for reference only also contains about 2,991 well selected volumes to which the students and graduates of the School have free access.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this Library.

The Boston Medical Library, No. 8 The Fenway, contains about 82,000 bound volumes and 56,000 pamphlets, and nearly 650 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

The Dental Museum is in charge of Dr. WALDO ELIAS BOARDMAN, *Curator*. It contains about 3000 specimens, and offers unusual facilities for study of the teeth. The pathological anatomy of the teeth is shown by more than 2000 specimens, among which are over 200 dissected teeth

showing formations of secondary dentine in the pulp cavity, and also many other rare specimens of great value. There are 700 other specimens of human and comparative anatomy, illustrating a wide range of knowledge.

FELLOWSHIPS AND SCHOLARSHIPS

THE ROBERT T. MOFFATT FUND. DR. ROBERT T. MOFFATT, Class of 1895, has placed at the disposal of the Dean and Administrative Board the sum of five hundred dollars. One hundred dollars is available each year for five years to aid one or more worthy students in the second or third year. Application for this aid may be made to the Dean.

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS; the University received in 1909 the sum of three hundred and forty-six thousand four hundred and fifty-eight dollars and seventy cents from the residuary bequest of Mrs. AMEY RICHMOND SHELDON, and in 1910 the further sum of eight thousand seven hundred and fifty dollars from the same bequest, to establish, in memory of Mrs. Sheldon's husband, a member of the Class of 1842, the FREDERICK SHELDON FUND, "the income thereof to be applied in the discretion of and under rules to be prescribed by the President and Fellows . . . to the further education of students of promise and standing in the University by providing them with facilities for further education by travel after graduation or by establishing travelling scholarships." The income of this fund is at present about fifteen thousand dollars.

By a vote of the President and Fellows, a Committee of seven persons has been appointed to administer the Frederick Sheldon Fund for travelling scholarships. The income is not to be assigned in scholarships of fixed amounts, but "on recommendation to the Committee from the various Departments and Schools, to be assigned as the Committee shall deem most expedient for purposes of investigation or study either in this country—outside Harvard University—or abroad."

The Committee consists of the Deans of the Faculty of Arts and Sciences, the Graduate School of Arts and Sciences, the Graduate School of Business Administration, the Divinity School, the Law School, the Medical School, and the Bussey Institution.

Application in behalf of a student in any School, Division, or Department of the University must be made through the Dean or Chairman of that School, Division, or Department, to the Chairman of the Committee, Dean L. B. R. BRIGGS, and may be made at any time.

THE CHARLES ELLIOTT PERKINS SCHOLARSHIPS; three undergraduate scholarships and one graduate scholarship, with an income of three hundred dollars each. In 1909, thirty thousand dollars was received

from Mrs. CHARLES ELLIOTT PERKINS, of Burlington, Iowa, "in trust for the establishment of scholarships in Harvard University for students from Iowa, the scholarships to be forever known and designated as the 'Charles Elliott Perkins Scholarships.'

". . . . It is my desire that the benefits of this foundation shall be open to those desiring a so-called classical or liberal education, and to those desiring to fit themselves for the professions; and especially that young men who intend to pursue technical studies in preparation for a career in business or engineering may be encouraged by these scholarships to precede their technical studies, or combine them, with such liberal studies as shall contribute to their breadth of view, sympathy with all humane interests, and capacity for ultimate leadership. In fulfilment of the purpose above described, I desire the income of the fund to be divided among four or more scholarships, in accordance with the following terms:—

"I. One undergraduate scholarship of at least \$300, to be offered annually, upon his graduation from an Iowa high school, to a *bona fide* resident of that part of the State of Iowa which is now served by the Chicago, Burlington & Quincy Railway system.

"II. Two undergraduate scholarships of \$300 each, to be offered annually to students from Iowa high schools. . . .

"III. One graduate scholarship of \$300, to be offered each year to a graduate of an Iowa college or university in any of the graduate or professional departments of Harvard University.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

The Director of Scholarships will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

THE HARRIET NEWELL LOWELL SOCIETY FOR DENTAL RESEARCH

In 1907, Miss HARRIET NEWELL LOWELL bequeathed to the Harvard Dental School a sum of money, the interest to be applied each year to dental research. In addition to the appointment of a special research worker and a research committee of four men, the Administrative Board formed the Harriet Newell Lowell Society for Dental Research. The object of the Society is to interest the students in research. Its president and a majority of its executive committee are students, and meetings are held in the School building. A well-equipped research laboratory is open for the use of the students and teachers who are interested in scientific investigation.

WARREN ANATOMICAL MUSEUM IN THE MEDICAL SCHOOL

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy and *materia medica*. These are placed in the hands of the student at any time during the day, upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosive preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

EXAMINATIONS

The final examination in every required subject is held at the close either of the first or of the second term of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The examination in certain studies of the first year is held at *mid-year* only, and is for those who are members of the School at the time,

and for those entitled to apply for the degree, provided they have failed previously in those subjects. The *June examination* is only for those who are members of the School at the time, and for those entitled to apply for the degree. The *September examination* is for conditioned students or for applicants for advanced standing. In some branches a portion of the examination consists of practical work in the laboratory.

The amount of time credited to each examination is as follows:—

First Year.—Anatomy (3 hrs.), Histology and Embryology (3 hrs.), Physiology* (3 hrs.), Dental Chemistry (3 hrs.), Physiological Chemistry* (3 hrs.), General Pathology (3 hrs.).

Second Year.—Dental Pathology (3 hrs.), Materia Medica and Therapeutics (2 hrs.), Operative Dentistry (2 hrs.), Bacteriology* (1 hr.), Clinical Chemistry (2 hrs.), Prosthetic Dentistry and Orthodontia (2 hrs.), Crown and Bridge Work (2 hrs.).

Third Year.—Operative Dentistry (2 hrs.), Applied Therapeutics (2 hrs.), Surgical Pathology and Surgery (3 hrs.), Prosthetic Dentistry (2 hrs.), Orthodontia (2 hrs.), Crown and Bridge Work (2 hrs.).

In addition to the above examinations each student is required:—

- To dissect three parts of the body to the satisfaction of the Demonstrators;
- To satisfactorily complete the required specimens of Prosthetic Dentistry for the Junior and Senior years;
- To demonstrate his ability to meet satisfactorily the practical requirements in Operative and Prosthetic Dentistry;
- To successfully carry on the treatment of at least two cases of irregularities of the teeth.

No student may advance with his class until he has passed a satisfactory examination in a majority of the studies already pursued.

No student is admitted to the third-year class in practical Operative and Prosthetic Dentistry until he has shown reasonable proficiency in the work of the second year.

No student may enter the second-year class until he has passed all the required examinations for entrance to the School.

Students who fail in any subject may present themselves in that subject again at the next regular examination. After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

* The examinations in these subjects are held at the end of the first half-year.

REQUIREMENTS FOR THE DEGREE

The degree of DOCTOR OF DENTAL MEDICINE (*Dentariae Medicinae Doctoris*) may be conferred upon any candidate of adult age, and of good moral character, who has passed *all the required examinations*. He must also give evidence of having studied Medicine or Dentistry in some recognized school three full years, the last continuous year of which must have been spent at this School.

The degree of Doctor of Dental Medicine *cum laude* will be given to candidates who have pursued a complete three years' course in this School and obtained not less than eighty per cent in Practical Operative and Prosthetic Dentistry and an average of eighty per cent or over in all other required examinations.

The course is a graded one of three continuous years. *Graduates* from other reputable Dental Schools whose Course of Instruction consists of three years of nine months each may obtain the degree of Doctor of Dental Medicine by spending one year in the School and passing the required examinations.

The right to take the examinations, as well as the privilege of continuing membership in the School, is conditioned upon regular attendance upon lectures, infirmary practice, and laboratory exercises.

Candidates for the degree are obliged to apply for the same in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

INSTRUMENTS

With the exception of extracting instruments, lathes, and vulcanizers, flasks, impression trays, blow-pipes and articulators, each student will be required to furnish his own instruments, and appliances for both laboratory and operating room.

At the beginning of the second half of the first year a few dental instruments are required. At the beginning of the second year a complete list of instruments required for use in both the Operative and Prosthetic Departments is furnished by the School, and each student is required to provide himself with the instruments enumerated upon the lists before beginning his work. The cost of these instruments, including the dental engine, is about one hundred and fifty dollars.

FEES AND EXPENSES

There are no fees for matriculation, for the diploma, for the demonstrators, nor for materials used in the infirmary or prosthetic laboratory. For the first year of a student's membership in the School, the tuition fee is *two hundred dollars*, in two payments of *one hundred and twenty dollars* and *eighty dollars*; for a half-year only, *one hundred and twenty dollars*; for the second and third years, *one hundred and fifty dollars* each, in two payments of *ninety dollars* and *sixty dollars*; and for any subsequent year, *fifty dollars*.

During the first year there are the following additional expenses: Three dollars for each of the two parts required for dissection; three dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, three dollars for Histology, and twenty-five dollars for Chemistry and Physiology. During the second and third years a deposit of ten dollars is required to cover any loss or breakage of appliances in the infirmary and prosthetic laboratory. The balances of these deposits are returnable at the end of the year on application to the Bursar. In the second year there is a fee of five dollars for Chemistry and a fee of three dollars for Bacteriology.

A deposit of two dollars with the Dean of the Medical School will entitle a student to the use of a locker in the Medical School buildings during the first year.

A student who wishes to rent a microscope of the School can do so upon payment of four to six dollars a half-year.

Special students, admitted at the discretion of the Dean to the courses in Operative and Prosthetic Dentistry for the whole or any portion of the academic year, pay a fee of *fifty dollars* for each course.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places, at various prices, can be obtained at the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

Students' expenses may also be reduced by occupying rooms in the College dormitories in Cambridge. Information in regard to College rooms may be obtained after March 6 upon application to the Bursar.

At Memorial Hall, Cambridge, the cost of board is expected not to exceed \$5.25 a week.

At Foxcroft Hall, Cambridge, meals are served a la carte, at a cost which averages about \$3.50 a week. Application should be made early to the Auditor, Foxcroft Hall.

* The Bursar's office is in Dane Hall, Harvard Square, Cambridge. Hours 9-1.

Any student who lives in a College room, or boards at Memorial Hall or at Foxcroft Hall, must file a bond in the sum of *four hundred dollars*; or deposit *four hundred dollars* in money or United States Bonds; or deposit fifty dollars as security, pay his tuition-fees in advance as above, pay in advance the full year's rent of any room that may be assigned to him, and make a deposit with the Bursar as security for the payment of his board. In the case of Memorial Hall the deposit for board may be made each week at the rate of \$6.00, or it may be made less frequently in multiples of that figure. In the case of Foxcroft Hall, the deposit, made in sums of \$5.00 or multiples thereof, must be such as to maintain constantly in the Bursar's hands a balance in excess of ten dollars.

STILLMAN INFIRMARY FEE

Not later than October 5 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

PAYMENT OF FEES

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of one hundred and fifty-four dollars; in like manner, each second-year student is required to pay one hundred and eight dollars; and each third-year student, one hundred dollars; each student entering any subsequent year is required to pay, in the same manner, fifty dollars. The remainder of the tuition fee—eighty dollars for the first-year students and sixty dollars for the second and third-year students—must be paid to the Bursar on or before January 31. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation of the student from the University.

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of

bonds may be obtained from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School. *No degree can be conferred until all dues to the School are discharged.*

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School.

Students, on joining the School, and at the beginning of each school year, must enter their names with the Dean of the School. They are expected to register on the first day of the academic year, *the Monday preceding the last Wednesday in September.*

TABULAR VIEW — 1916-17

FIRST YEAR — First Half-Year

MEDICAL SCHOOL

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9-10			<i>October.</i> Mammalian Anatomy. Lecture. <i>Nov., Dec., Jan.</i> Physiology. Lecture.			Chemistry. Lecture. <i>October.</i> Physiology. Lecture. <i>Nov., Dec., Jan.</i>
10-1			<i>October.</i> Mammalian Anatomy. Laboratory. <i>Nov., Dec., Jan.</i> Physiology. Laboratory.			Chemistry. Lab. <i>October.</i> Physiology. Lab. <i>Nov., Dec., Jan.</i>
PHYSIOLOGICAL AND DENTAL CHEMISTRY.						
2-2-30			Lecture. Daily except Saturday.			
2-30-5			Laboratory. Daily except Saturday.			
FIRST YEAR — Second Half-Year						
ANATOMY, HISTOLOGY AND EMBRYOLOGY.						
	<i>February — April</i>		<i>May.</i>			
9 to 1	Daily except Saturday.		Dental Pathology. Daily except Saturday.			
2 to 5	Daily except Saturday. Dissection.		Histology. Teeth and sections of the head. Daily except Saturday.			
						9-1 Prosthetic Dentistry H. D. S. <i>Feb., Mar., April, May.</i>

TABULAR VIEW—1916-17

October

SECOND YEAR—First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9		Mat. Medica L. H.M.S. E-221.	Crown and Bridge Work. Conferences H.D.S.	Dent.Path.,L. H.M.S. E-221.	Op. Dent., L. H.M.S. E-221.	Pros. Dent. L. H.M.S. E-221.
10		Pract. Oper. Dentistry. Section B.	Pract. Oper. Dentistry. Section A.	Pract. Oper. Dentistry. Section B.	Pract. Oper. Dentistry. Section A.	Pros. Lab. Section A.
to	Pract. Oper. Dentistry. Section A.	Pros. Lab. Section A.	Pros. Lab. Section B.	Pros. Lab. Section A.	Pros. Lab. Section B.	
	Pros. Lab. Section B.					Extracting and Anaesthesia
1						
2-3	Bacteriology. Lectures. Daily, except Saturdays. Medical School Building.					
3 to 5½	Bacteriology. Laboratory. Daily, except Saturdays. Medical School Building.					

TABULAR VIEW—1916-17

November

SECOND YEAR—First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9		Mat. Medica L. H.M.S. E-221.	Crown and Bridge Work. Conferneecs H.D.S.	Dent.Path.,L. H.M.S. E-221.	Op. Dent.,L. H.M.S. E-221.	Pros. Dcnt. L. H.M.S. E-221.
10	Pract. Oper. Dentistry. Section B.	Pract. Oper. Dentistry. Section A.	Pract. Oper. Dentistry. Section B.	Pract. Oper. Dentistry. Section A.	Pract. Oper. Dentistry. Section B.	Pros. Lab. Section B. Pract. Oper. Dentistry. Section A.
to	Pros. Lab. Section A.	Pros. Lab. Section B.	Pros. Lab. Section A.	Pros. Lab. Section B.	Pros. Lab. Section A.	
1						Extracting and Anaesthesia
	NOVEMBER.					
2-3	Bacteriology. Lectures. Daily, except Saturdays. Harvard Medical School.					
3 to 5½	Bacteriology. Laboratory. Daily, except Saturdays. Harvard Medical School.					

TABULAR VIEW—1916-17
December—January

SECOND YEAR—First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9		Mat. Medica L. H.M.S. E-221.	Crown and Bridge Work. Conferences H.D.S.	Dent.Path.,L. H.M.S. E-221.	Op. Dent.,L. H.M.S. E-221.	Pros. Dent. L. H.M.S. E-221.
10	Pract. Oper. Dentistry.	Pract. Oper. Dentistry.	Pract. Oper. Dentistry. Sec. B.—Dec. Sec. A.—Jan.	Pract. Oper. Dentistry.	Pract. Oper. Dentistry.	Pract. Oper. Dentistry. Sec. B.—Dec. Sec. A.—Jan.
to			Pros. Lab. Sec. A.—Dec. Sec. B.—Jan.			Pros. Lab. Sec. A.—Dec. Sec. B.—Jan.
1				Extracting and Anaesthesia.		Extracting and Anaesthesia
2	Pros. Dent. Lab.	Pros. Dent. Lab.	Pros. Dent. Lab.	¹ Pros. Dent. Lab.	Pros. Dent. Lab.	
to				¹ Porcelain Work.		
5	Extracting and Anaesthesia.	Extracting and Anaesthesia.	Extracting and Anaesthesia.	Extracting and Anaesthesia.	Extracting and Anaesthesia.	

¹ In sections.

TABULAR VIEW—1916-17

SECOND YEAR—Second Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9		Mat. Medica L. H.M.S. E-221.		Dent.Path.,L. H.M.S. E-221.	Op. Dent.,L. H.M.S. E-221.	Prosthctic Dentistry, L. H.M.S. E-221.
10	Pract. Oper. Dentistry.	Pract. Oper. Dentistry.	¹ Pract. Oper. Dentistry.	Pract. Oper. Dentistry.	Pract. Oper. Dentistry.	¹ Pract. Oper. Dentistry.
to						² Pros. Lab.
1			² Pract. Pros. Dentistry.	Extracting and Anaesthesia.		Extracting and Anaesthesia
2	Pract. Pros. Dentistry.	Pract. Pros. Dentistry.	Pract. Pros. Dentistry.	Pract. Pros. Dentistry.	Pract. Pros. Dentistry.	
to	Extracting and Anaesthesia.	Extracting and Anaesthesia.	Extracting and Anaesthesia.	¹ Porcelain Work.	Extracting and Anaesthesia.	
5				Extracting and Anaesthesia.		

¹ Section B, February and April; Section A, March and May.

² Section A, February and April; Section B, March and May.

TABULAR VIEW—1916-17

THIRD YEAR—October and November

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Op. Dent. L. H.M.S. A-201.	Surgery, L. H.M.S. A-201.	Orthodontia L. H.M.S.A.-201	Prosthetic Dent. L. H.M.S.A-201. or Conferences H. D. S.	Syphilis, L. H.M.S.A-201. Roentgen- ology Com. Oct. 6	Clinical Conferences H.D.S.
10 to 1	Prosthetic Dentistry. Lab.	¹ Oral Surgery. Clinic. ¹ Prosthetic Dentistry. Lab.	Crown and Bridge Work. Clinic. Pros. Dent. Lab.	¹ Porcelain Work. Clinic. ¹ Prosthetic Dentistry. Lab.	Prosthetic Dentistry.	Orthodontia Clinic. Extracting and Anaesthesia
2	Pract. Op. Dentistry. Extracting and Anaesthesia.	Pract. Op. Dentistry. Extracting and Anaesthesia.	Pract. Op. Dentistry. Clin. Pyorrhoea. Extracting and Anaesthesia.	Pract. Op. Dentistry. Extracting and Anaesthesia.	Pract. Op. Dentistry. Extracting and Anaesthesia.	
4 to 5		Orthodontia.		Orthodontia		

¹ In sections.

TABULAR VIEW—1916-17

THIRD YEAR—December—January

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Op. Dent. L. H.M.S.A.-201.	Surgery, L. H.M.S.A.-201.	Orthodontia L. H.M.S.A.-201	Prosthetic Dent. L. H.M.S.A.-201. or Conferences H. D. S.	Applied Therapeutics Com. Jan. 5	Clinical Conference H.D.S.
10 to 1	Prosthetic Dentistry. Lab.	¹ Oral Surgery. Clinic. ¹ Prosthetic Dentistry. Lab.	Crown and Bridge Work. Clinic. Pros. Dent. Lab.	¹ Porcelain Work. Clinic. ¹ Prosthetic Dentistry Lab.	Prosthetic Dentistry.	Operative Dentistry. Extracting and Anaesthesia
2	Praet. Op. Dentistry. Extracting and Anaesthesia.	Praet. Op. Dentistry. Extracting and Anaesthesia.	Praet. Op. Dentistry. Clin. ¹ Pyorrhoea. Extracting and Anaesthesia.	Praet. Op. Dentistry. Extracting and Anaesthesia.	Praet. Op. Dentistry. Extracting and Anaesthesia.	
4 to 5		Orthodontia.			Orthodontia.	

¹ In sections.

TABULAR VIEW—1916-17

THIRD YEAR—February—June

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Op. Dent. L. H.M.S. A-201.	Surgery, L. H.M.S. A-201.	Crown and Bridge Work. Clin. Lect. H.M.S. A-201.	Prosthetic Dent. L. H.M.S. A-201. or Conferences H.D.S.	Neurology. 4 lectures. H.M.S. A-201. Com. Mar. 9.	Orthodontia L. H.M.S. A-201. or Clinical Conference H.D.S.
10 to 1	Prosthetic Dentistry. Lab.	¹ Oral Surgery Clinic. ¹ Prosthetic Dentistry. Lab.	Crown and Bridge Work. Clinic. ¹ Pros. Dent. Lab.	¹ Porcelain Work. Clinic. ¹ Prosthetic Dentistry Lab.	Prosthetic Dentistry.	Operative Dentistry. Extracting and Anaesthesia
2	Pract. Op. Dentistry. Extracting and Anaesthesia.	Pract. Op. Dentistry. Extracting and Anaesthesia.	Pract. Op. Dentistry. Clin. ¹ Pyorrhoea. Extracting and Anaesthesia.	Pract. Op. Dentistry. Extracting and Anaesthesia.	Pract. Op. Dentistry. Extracting and Anaesthesia	
4 to 5		Orthodontia.			Orthodontia	

¹ In sections.

TENTATIVE FOUR-YEAR COURSE

Beginning September, 1917

	FIRST YEAR	FIRST TERM	SECOND TERM
Biology	240		
Chemistry, Qualitative, and Metallurgy	240		
(1 month General) Inorganic and Dental			
English—conference and theses	64		64
Histology			220
General Pathology			80
Anatomy			180
Prosthetic Dentistry—technique	80		80
SECOND YEAR			
Physiology	240		
Bacteriology	153		
Oral Anatomy; Histology, Normal and Pathological	105		
Prosthetic Dentistry—technique	144		168
Chemistry, Organic, Physiological and Clinical			180
Operative Technique			240
THIRD YEAR			
Materia Medica and Therapeutics—Lectures	16		16
Dental Pathology—Lectures	16		16
Crown and Bridge—Lectures	8		8
Orthodontia—Lectures			10
Operative Dentistry—Lectures	16		16
Operative Dentistry—Practice	240		240
Prosthetic Dentistry—Lectures	16		16
Prosthetic Dentistry—Practice	264		264
Inlay Work			48
FOURTH YEAR			
Operative Dentistry—Lectures	16		16
Surgery, etc.—Lectures	16		16
Operative Surgery—Sections			
Radiography—Lectures (Demonstrations in sections)	16		16
Crown and Bridge—Lectures	8		8
Crown and Bridge—Practice	48		48
Syphilis—Lectures and conferences			
Neurology—Lectures			4
Orthodontia—Lectures	16		16
Orthodontia—Practice	91		64
Inlay Work	48		48
Operative Dentistry—Practice	229		256
Prosthetic Dentistry—Practice	237		216

LIST OF GRADUATES

1911

Frederick Hooke Bridgham,	Mansfield, Wash.
Charles Sumner Emerson, Jr.,	Dorchester.
Byron Hinson Haley, <i>cum laude</i> ,	Newport, R. I.
Herman Everett Hichborn,	Boston.
Albert Charles Holzman,	Boston.
Frederick Dean McIntyre,	Danvers.
Charles Franklin Ross,	Lebanon, N. H.
Charles Frederick Sprague,	Boston.
Samuel Warren Stoddard,	Boston.
Leon Axtelle Storz,	Worcester.
Kurt Hermann Thoma, <i>cum laude</i> ,	Boston.
Bernard Walper,	Roxbury.

1912

Earl Alexander Anderson,	Portland, Me.
William Wilton Anthony,	Boston.
David Francis Burke,	Cambridge.
Thomas Francis Cloney, Jr.	New York, N. Y.
Ivan Rogers Cottrell,	New York, N. Y.
Joseph Benjamin Finberg,	Haverhill.
Aaron Hyman Nathan Flink,	Roxbury.
Nathan Solomon Friedberg,	Boston.
Adolph Gahm,	Brighton.
Vincent Aloysius Gookin,	Dorchester.
Francis Thomas Hassett,	Great Barrington.
Elias Hirshon,	Boston.
Joseph Horgan,	Cambridge.
Frederick Waldemar Hovestadt,	Boston.
William Gleason Jewett,	Gardner.
Victor Paul Klapacs,	So. Boston.
Cedric Tremaine Lynes,	Winchester.
Lawrence Edward McGourty,	Malden.
Paul Robert Manning,	Holyoke.
Everett Leo Noonan,	Cambridge.
John Clarence Normand,	Providence, R. I.
Joseph Sylvester O'Connor,	Worcester.
Herbert Carroll Ober,	Cambridge.
Julius Simon Pos,	New York.
Arthur Hodgkins Reed,	Boston.
Francis Porter Riggs,	New York.

Henry James Skinner,	Dorchester.
Samuel Small,	Boston.
Nishan Der Sarkis Tashjian,	Boston.
Harold Freeman Tufts, A.B. (<i>Acadia Coll.</i>) 1900,	Boston.
Everett Thomas Waters,	New York, N. Y.
Frederick Emory Wellington,	Fitchburg.
Meyer Winer,	Salem.
Chester Fisher Wolfe,	Norwood.
Nicholas Edward Young,	Haverhill.

1913

Harold Wales Alden,	Northampton.
Samuel Berry,	Boston.
David David Bloom,	Boston.
Percy Tylor Burt,	Brockton.
Berj Quarekin Chutjian,	Boston.
Abraham Kaganovsky Cohen,	Minneapolis, Minn.
Jacob William Cushner,	Boston.
Joel Emanuel Davidson,	Dorchester.
Hachadoor Sarkis Emirzian,	Providence, R. I.
Merton Weston Foss,	Brockton
Thomas James Gibling, Jr.,	Dorchester.
Ralph Edward Gove,	Boston.
Edward Martin Guthrie,	Malden.
Raymond Burns Hanrahan,	Boston.
Stuart Roberts Hayman,	Boston.
Harold Clement Hoyer,	Belmont.
Charles Alexander Judd,	Danbury, Conn.
David Gyorgy Klein,	Dorchester.
Louis Kovalsky,	Fall River.
William Stocks Lacey, L.D.S. (<i>England</i>) 1908,	
M.R.C.S., L.R.C.P. (<i>England</i>) 1912,	Hertford, Herts, England.
George Holland Lappen,	Dorchester.
Julius Henry Levine,	Roxbury.
Ernest Lapham Lockwood,	Providence, R. I.
Allan Witham Lord,	Danvers.
Ansel Mayo Lothrop,	Belfast, Maine.
Sterling Nye Loveland,	Boston.
Thomas Stephenson MacKnight,	New York.
Thomas Edward McGreen,	Providence, R. I.
William Henry Maguire,	Walpole.
Stephen Parker Mallett,	Boston.
Jean Achille Morin,	Paris, France.

George Frederick Marsh, Jr.,
 Horatio Cook Meriam, A.B. 1911,
 Harry Yeates Nutter,
 Harrison Lindsay Parker,
 Charles William Rawlins,
 Charles Weston Ringer,
 Joseph Henry Selib,
 John Mark Smith,
 Henry Francis Stevenson,
 Lee Forney Strickler,
 Roy Greenwood Strickler,
 Frederick Charles Thomson,
 Philip Edgar Tukey,
 Raymond Lesley Webster,
 Morton Fenton Yates,

Boston.
 Salem.
 Winchester.
 Boston.
 Roxbury.
 Allston.
 Boston.
 Chelsea.
 New York, N. Y.
 Paterson, N. J.
 Paterson, N. J.
 Cambridge.
 Portland, Me.
 Providence, R. I.
 So. Framingham.

1914

George Nathan Abbott,
 Abraham Altshuler,
 Walter Irving Ashland,
 Benjamin Edward Bahn,
 David Samuel Bedrick,
 Tullio Nicola Bello,
 Max Besas,
 Knut Erhard Boldt-Christmas, A.B. (*Linköping*,
Sweden) 1910,
 Edward Vincent Bowler,
 Frederick James Caldwell,
 Victor Thomas Augustine Curtin,
 Basil Constantine Despotes,
 Pierre Stevens de Belfort Didsbury,
 Ralph Howard Drury,
 Ralph Burleigh Edson,
 Norman Ellard,
 Edward Finn,
 Harry Fishman,
 Harold Irving Fiske,
 Cecil Gray Fletcher,
 Fred Strong Frary,
 David Dangel Freedman,
 John Henry Garvin, Jr.,
 Charles William Goetz,

Rockland.
 Boston.
 Boston.
 Dorchester.
 Fall River.
 Boston.
 New York, N. Y.
 Halmstadt, Sweden.
 Waltham.
 Dorchester.
 Lawrence.
 Boston.
 Paris, France.
 Worcester.
 Springfield.
 Allston.
 Boston.
 Cambridge.
 Upton.
 New York, N. Y.
 New Haven, Conn.
 Boston.
 Lawrence.
 Roxbury.

Isaac Goldberg,
 Bernard Leo Higgins,
 Harry Leo Kilburn,
 Moses Hyman Lurie,
 Judson Stewart McGregor, S.B. (*Acadia Coll.*)

1908,

Harry Francis McKanna,
 George Edward Mahoney,
 Harold Woodbury George Marshall,
 Thomas William Murray,
 John Andrew Nash,
 Will Carleton Niles,
 Daniel Joseph O'Mara,
 Ivan Wallace Pasmore, L.D.S., R.C.S. (*England*)

1912,

George Porter Pendleton,
 Charles Walter Proud,
 Bene Rippen,
 Abraham George Roitman,
 Max Schneider, L.D.S., R.C.S. (*England*) 1912,
 Stuart Hamilton Vaughan,
 Walter Elton Wade,
 Thomas Alexander Moffatt Wilson,
 Walter Edward Young,

Boston.
 Boston.
 Fredericton, N. B.
 Dorchester.

Boston.
 Riverpoint, R. I.
 Lowell.
 Athol.
 Portland, Me.
 Dorchester.
 Watertown.
 New Haven, Conn.

Exeter, England.
 Natick.
 Everett.
 Leyden, Holland.
 E. Boston.
 Gorlitz, Germany.
 Melrose.
 Brookline.
 Perth, W. Australia.
 Newton Centre.

1915

Joseph Arthur Ahern,
 Charles Ellis Allen,
 Maxwell Leon Aronson,
 George Brickett Blaisdell,
 Fred Ralph Blumenthal,
 Cleophas Paul Bonin,
 Cyrus King Briggs,
 Ferdinand Brigham, A.B.
 Louis Nathaniel Brody,
 Thomas Dalton Brown, PH.B.
 Arthur Leo Cavanagh,
 Walter Harlow Chambers,
 Carroll Lindley Church,
 Zelman Cohen,
 John Edward Coleran,
 George Edmond Comeau, A.B.

Boston.
 Burlington, Vt.
 Johannesburg, So. Africa.
 Pittsfield.
 Dorehester.
 No. Grosvenordale, Conn.
 Philips, Me.
 So. Framingham.
 Dorehester.
 Boston.
 Somerville.
 Somerville.
 Gardiner, Me
 Boston.
 Dorehester.
 Lower Saulnierville, N. S.

Ralph Corydon Curtis,	Boston.
Frank Holmes Cushman, B.S.	Claremont, N. H.
Harold James Cutler, A.B.	Edmonton, Alta.
John Fletcher Dillon,	Dorchester.
Francis Chester Durant,	Boston.
Samuel William Garfinkle,	Hartford, Conn.
Jacob Genensky,	New Bedford.
Jacob Helfanbein,	Fall River.
Oswald William Holmes,	Winthrop.
John Hassan Jaffar,	Boston.
Frank Burt Johnson,	Pawtucket, R. I.
Claude Victor Johnston,	Providence, R. I.
William Columbus Keller,	Flushing, L. I., N. Y.
Charles Henry King,	Bangor, Me.
Dickran Mugerdich Konjoyian,	Worcester.
Herman William Kupperstein,	Hartford, Conn.
Joseph Kupperstein,	Hartford, Conn.
Arthur Albert Lawry,	Asheville, N. C.
Frank Herbert Leslie,	Boston.
Chauncey Nye Lewis,	Boston.
Simon DeSalles McCarty,	Boston.
Arthur Benedict McCormick, A.B.	Waltham.
Edward Aloysius Mahoney,	Boston.
Gabriel Melvin Mendelsohn,	Boston.
Edward Russell Murphy,	Winchester.
Gustave Henry Oetiker,	New York, N. Y.
Herman Ashton Osgood, A.B.	Roxbury.
James Howard Reed,	New York, N. Y.
Habib Yûsuf Rihân, A.B.,	Boston.
Barnard Sagall,	Boston.
Charles Berry Sawyer,	Lynn.
Samuel Vaughan Selby, I.D.S.,	Sydney, Australia.
Samuel Saul Sharfman,	Boston.
Charles Joseph Smith,	Providence, R. I.
Roy Brackett Stevens,	Waltham.
Francis Joseph Terra,	Dorchester.
Elmer Russell Treadwell,	Lynn.
Jan Frederik Vercueil,	Middleburg, Transvaal, So. Africa.
Ellmore Loftis Wallace,	Brockton.
Barnet Maurice Wein,	Roxbury.
Ray Owen Worthen,	Barre, Vt.
Max Yavner,	Boston.

1916

Hyg Adams,
 Samuel Edward Ansel,
 Claude Vineent Barrett,
 Frederick Floron Bates,
 James Bell,
 John Edward Boland,
 Arthur George Buehler,
 Harold Howard Buehler,
 Daniel Henry Burke, Jr.
 Frank Thomas Burke,
 Lewis Osgood Card,
 Charles Russell Carroll,
 Joseph Clifford,
 Thomas Francis Dempsey,
 Michael Thomas Fenton,
 Joseph Paul Fleming, Jr.
 Charles Arthur Forbush,
 Wilfred Joy Fuller,
 Frederick Francis Furfey,
 Arthur Joseph Gallagher,
 Frank Herbert Galloway,
 Raymond Walker Gatchell,
 Philip Goldberg,
 Harry Goldinger,
 Julius Benjamin Goldsmith,
 Roy Frederick Good,
 Homer Robinson Gray,
 William Harry Gullifer,
 Everett Clayton Ham,
 Melville Winslow Haynes,
 Arthur Adolf Paul Held,
 Ray King Hodgkins,
 Philip Hutchinson MacInnis,
 Augustus Anthony McKenna,
 Edward Patrick Henry Morrissey,
 Russell Lee Newling,
 Owen Roe O'Neil,
 Harold Lee Peacock,
 Frederick Gunner Piercee,
 Jacob Pofeher,

Revere.
 Chelsea.
 Milo, Me.
 Allston.
 Lawrence.
 Northampton.
 New York, N. Y.
 New York, N. Y.
 Rockland.
 Brockton.
 Somerville.
 Worcester.
 Dorchester.
 Newton.
 Hartford, Conn.
 Roxbury.
 Boston.
 Somerville.
 Brookline.
 Brookline.
 Lawrence.
 Pawtucket, R. I.
 E. Boston.
 E. Boston.
 New York, N. Y.
 Monticello, Me.
 Uxbridge.
 Belmont.
 Somerville.
 Dorchester.
 Leipsie, Germany.
 Bar Harbor, Me.
 Malden.
 Fall River.
 So. Boston.
 Adelaide, So. Australia.
 Belfast, Transvaal, So. Africa.
 Somerville.
 West Acton.
 Roxbury.

Fred Seavey Powers,
 Wentworth Baldwin Prentice,
 Chester Leigh Sandiford,
 Jacob Seidenberg,
 Clarence Geddes Severy,
 William Sissenwine,
 Walter James Sly,
 Byron Nelson Harris Smith,
 George Cleland Smyth,
 Homer Charles Sowles,
 Benjamin Strout Stevens,
 Farnum Charles Stevens,
 Harold Lincoln Stover,
 Clifford Strange,
 Max Harold Summerfield,
 Lewis Garland Tewksbury,
 William Ransom Thompson,
 Maurice John Tierney, Jr.,
 Laurence Starrett White,
 Charles Rollin Williams,

Deer Isle, Me.
 Norwich, Conn.
 Belmont.
 Chelsea.
 Boston.
 Dorchester.
 Waltham.
 Lakewood, R. I.
 Providence, R. I.
 Barre, Vt.
 Brockton.
 Derry, N. H.
 Amesbury.
 Portland, Me.
 Roxbury.
 Camden, Me.
 Lowell.
 Dorchester.
 Wollaston.
 Salem.



OFFICIAL REGISTER OF HARVARD UNIVERSITY

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These publications include :—

The Annual Reports of the President and of the Treasurer.
The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University; the Descriptive Pamphlet; the Announcements of the several Departments; etc., etc.

